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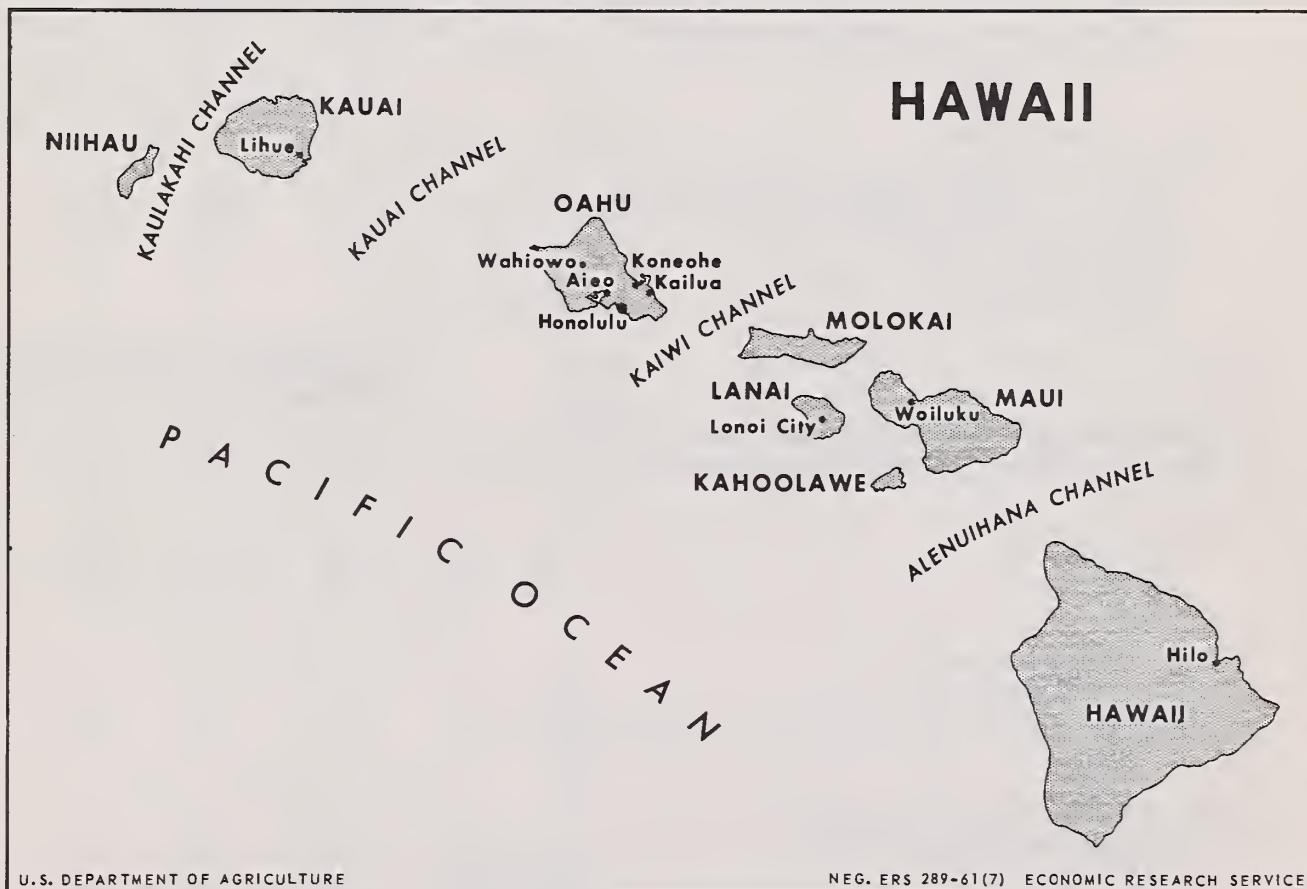
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# **The MARKETING and TRANSPORTATION SITUATION**



## IN THIS ISSUE

# **Farm-Food Marketing Bill Marketing Hawaii's Products Railroad Merger Activity Packer Costs for Fresh Pork**

STATISTICAL SUMMARY OF MARKET INFORMATION

Item	Unit or base period:	1960		1961	
		Year	Apr.-June	Oct.-Dec.	Jan.-Mar.
<u>Farm-to-retail price spreads</u> 1/					
Farm-food market basket:					
Retail cost .....	Dol.	1,052	1,057	1,065	1,068
Farm value .....	Dol.	408	410	419	419
Farm-retail spread .....	Dol.	644	647	646	649
Farmer's share of retail cost .....	Pct.	39	39	39	37
Cotton: 2/					
Retail cost .....	Dol.	2.17	2.15	2.19	2.19
Farm value .....	Dol.	.30	.30	.29	.29
Farm-retail spread .....	Dol.	1.87	1.85	1.90	1.90
Farmer's share of retail cost .....	Pct.	14	14	13	13
Cigarettes: 3/					
Retail cost .....	Ct.	27.2	---	---	---
Farm value .....	Ct.	4.02	---	---	---
Federal and State excise taxes .....	Ct.	12.7	---	---	---
Farm-retail spread excluding excise taxes .....	Ct.	10.5	---	---	---
Farmer's share of retail cost .....	Pct.	15	---	---	---
General economic indicators					
Consumers' per capita income and expenditures: 4/					
Disposable personal income .....	Dol.	1,947	1,956	1,951	1,940
Expenditures for goods and services .....	Dol.	1,820	1,829	1,827	1,811
Expenditures for food .....	Dol.	392	395	395	392
Expenditures for food as percentage of disposable income .....	Pct.	20.1	20.2	20.2	20.2
Hourly earnings, production workers, manufacturing: 5/					
Hourly earnings of food marketing employees 6/...	Dol.	2.29	2.29	2.32	2.33
Retail sales: 7/					
Food stores .....	Mil. dol.	4,485	4,531	4,603	4,548
Apparel stores .....	Mil. dol.	1,142	1,129	1,161	1,076
Manufacturers' inventories: 7/					
Food and beverage .....	Bil. dol.	4.98	5.00	5.06	5.14
Textile .....	Bil. dol.	2.67	2.71	2.76	2.76
Tobacco .....	Bil. dol.	2.03	1.96	1.98	1.98
Indexes of industrial production: 8/					
Food and beverage manufactures .....	1957=100	109	109	111	111
Textile mill products .....	1957=100	109	113	104	106
Apparel products .....	1957=100	124	127	120	120
Tobacco products .....	1957=100	114	115	116	122
Index of physical volume of farm marketing .....	1947-49=100	133	105	103	97
Price indexes					
Consumer price index 5/ .....	1947-49=100	126.5	126.3	127.5	127.5
Wholesale prices of food 5/ .....	1947-49=100	106.0	106.1	107.5	105.8
Wholesale prices of cotton products 5/ .....	1947-49=100	94.2	94.8	90.2	89.9
Wholesale prices of woolen products 5/ .....	1947-49=100	102.1	102.4	99.5	100.1
Prices received by farmers 9/ .....	1947-49=100	88	89	90	88
Prices paid by farmers 9/ .....	1947-49=100	115	115	115	115

1/ Average quantities of farm food products purchased per wage-earner or clerical-worker family in 1952. 2/ Data for average family purchases in 1950 of 25 articles of cotton clothing and housefurnishings divided by number of pounds of lint cotton required for their manufacture; see U.S. Dept. Agr. Mktg. Res. Rpt. 277. 3/ Preliminary data for package of regular-sized, popular brand cigarettes; farm value is return to farmer for 0.065 lb. of leaf tobacco of cigarette-types; data for fiscal year beginning July 1, 1960. 4/ Seasonally adjusted annual rates, calculated from Dept. of Commerce data. Second quarter 1961 data are from preliminary estimates by the Council of Economic Advisers. 5/ Dept. of Labor. 6/ Weighted composite earnings in food processing, wholesale trade, retail food stores, calculated from data of Dept. Labor. 7/ Seasonally adjusted, Dept. Commerce. Sales data for 1960 are averages of monthly totals. Inventory data for 1960 are book values at end of year. 8/ Seasonally adjusted, Board of Governors of Federal Reserve System. 9/ Converted from 1910-14 base.

THE MARKETING AND TRANSPORTATION SITUATION

Approved by the Outlook and Situation Board July 28, 1961

CONTENTS

	<u>Page</u>
Summary . . . . .	3
Farm-Retail Spreads for Farm-Food Products . . . . .	4
The Farm-Food Marketing Bill . . . . .	11
Marketing Hawaii's Agricultural Products . . . . .	18
Recent Railroad Merger Activity . . . . .	30
Meatpacker Cost for Slaughtering, Cutting, and Marketing Fresh Pork . . . . .	39
Selected New Publications . . . . .	43
Quarterly Data for Market Basket of Farm Foods . .	44

SUMMARY

Charges for marketing farm food products averaged 3 percent higher in the second quarter this year than in the preceding 3 months, somewhat more than the usual seasonal rise. Nearly all the rise resulted from increases in marketing charges for beef and fresh fruits. Marketing charges of farm food products in the second quarter this year also averaged 3 percent higher than a year earlier.

Marketing firms' costs probably were higher than a year earlier. Average hourly earnings of food marketing employees in May were up 4 percent from the same month of 1960. This rise, however, may have been offset at least in part by an increase in output per man-hour. Prices of some items bought by marketing firms were higher than a year ago; others were lower.

Farmers' prices for food products averaged 5 percent lower in the second quarter than in the previous quarter. In recent years the average seasonal change from the first to the second quarter has been a 2-percent increase. Lower prices received by farmers for beef, frying chickens, and eggs were the major cause of the decline.

The dip in farmers' prices in recent months offset the rise in marketing charges, so the retail cost of farm food products changed little from the first to the second quarter. It was up a little from the second quarter last year.

Preliminary estimates show that farmers received 37 cents of the dollar consumers spent in retail food stores for farm food products in the second quarter this year compared with 39 cents in the same period of 1960. The farmer's share averaged 38 cents in the first half of this year.

Farm prices of meat animals, eggs, and frying chickens in the next few months are likely to continue below a year earlier. As a result, the farm value of the "market basket of farm foods" is likely to remain below year-ago levels. Marketing charges are apt to stay higher than in comparable months of 1960.

Highlights of Special Articles

1. The bill for marketing domestic farm food products sold to civilian consumers in this country totaled \$39.5

billion in 1960, 3 percent more than in 1959. This annual increase, which was smaller than average, resulted mainly from growth in the volume of products marketed. Consumer expenditures and farmers' receipts for these products also were up 3 percent in 1960. Labor costs, transportation charges, corporate profits, and other costs and noncorporate profits accounted for about the same proportions of the marketing bill in both years. (The Farm Food Marketing Bill, pp. 11-17.)

2. Producers of sugar and pineapple in Hawaii integrated production and marketing many years ago. Today they process their crops and export the products. Hawaii also exports coffee, macadamia nuts, papayas, and several specialty products. The State produces meat animals, livestock products, and many fruits and vegetables, but it also imports many of these products. Marketing conditions for Hawaiian products have changed in recent years, and further changes are expected. (Marketing Hawaii's Agricultural Products, pp. 18-29.)

3. Railroads have stepped up their merger activities in recent years. Unless

the opposition of competing carriers, shippers, labor unions, and other interested parties prevails, it seems likely that mergers will significantly alter the nation's railroad system in the years ahead. Some shippers of farm products probably will benefit from improved service and reduced rates resulting from mergers. Other shippers, however, may be harmed by reduced services and may receive no decreases in rates. (Recent Railroad Merger Activity, pp. 30-38).

4. A study of packers' costs of slaughtering and dressing hogs and marketing fresh pork shows that firms surveyed having lower than average labor costs also had greater than average output per man-hour. High labor cost per pound was associated with low output per man-hour, even when firms had low wage rates. Fixed costs per unit of output tended to be somewhat lower for firms with larger than average volume, but marketing costs per unit tended to be higher. For all firms surveyed as a group, returns from fresh pork just barely covered costs. (Meatpacker Costs for Slaughtering, Cutting, and Marketing Fresh Pork, pp. 39-42.)

## FARM-RETAIL PRICE SPREADS FOR FARM FOOD PRODUCTS

### Farm Value Declines 5 Percent in Second Quarter

The farm value of the market basket of farm foods declined 5 percent from the first to the second quarter this year.<sup>1/</sup> This decrease compares with an average seasonal increase of 2 percent in recent years. At an annual rate of \$398, it was the lowest farm value for the second quarter since 1957. Nearly all of the drop was caused by decreases in the meat pro-

ducts, dairy products, and poultry and eggs groups (table 2). A 7-percent increase in the fruits and vegetables group offset part of the large decline in these other groups. Apples and celery increased less than seasonally while cabbage, onions, and sweet potatoes increased more than seasonally (table 15, p. 44). These increases

<sup>1/</sup> The "market basket" contains the average quantities of farm-produced food products purchased per family in 1952 for consumption at home by urban wage-earner and clerical-worker families. Additional information concerning the contents of the market basket and methods of estimating market-basket data are given in Farm-Retail Spreads for Food Products, USDA, Misc. Pub. 741, 1957. The farm value is the payment farmers receive for the farm products equivalent to the foods in the market basket.

Table 1.--The farm food market basket: Retail cost, farm value, farm-retail spread, and farmer's share of retail cost, 1947-61 1/

Year and month	Retail cost 2/	Farm value 3/	Farm-retail spread	Farmer's share
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Percent</u>
1947-49 average .....	940	466	474	50
1950 .....	920	432	488	47
1951 .....	1,024	497	527	49
1952 .....	1,034	482	552	47
1953 .....	1,003	445	558	44
1954 .....	986	421	565	43
1955 .....	969	395	574	41
1956 .....	972	390	582	40
1957 .....	1,007	401	606	40
1958 .....	1,064	430	634	40
1959 .....	1,040	398	642	38
1960 4/ .....	1,052	408	644	39
1960				
January .....	1,030	388	642	38
February .....	1,028	394	634	38
March .....	1,032	412	620	40
April .....	1,053	416	637	39
May .....	1,055	409	646	39
June .....	1,062	405	657	38
July .....	1,063	409	654	38
August .....	1,055	402	653	38
September .....	1,054	404	650	38
October .....	1,062	413	649	39
November .....	1,065	421	644	40
December .....	1,068	422	646	39
1961				
January .....	1,068	418	650	39
February .....	1,070	424	646	40
March .....	1,068	414	654	39
April .....	1,069	408	661	38
May .....	1,060	396	664	37

1/ The farmer's share and index numbers of the retail cost, farm value, and farm-retail spread for the years 1913-59 are published in Supplement for 1956-60 to Farm-Retail Spreads for Food Products, U.S. Dept. Agr., Misc. Pub. 741, 1961.

2/ Retail cost of average quantities purchased per family in 1952 by urban wage-earner and clerical worker families, calculated from retail prices collected by the Bur. Labor Statistics.

3/ Payment to farmers for equivalent quantities of farm produce minus imputed value of byproducts obtained in processing.

4/ Preliminary estimates.

: Current data are given in the Statistical Summary, :  
: a monthly publication of the Statistical Reporting Service.:

Table 2.--The market basket of farm foods: Retail cost, farm value, and farm-retail spread, January-March and April-June 1961

Product group	Apr.-June 1961	Jan.-Mar. 1961	Change: Jan.-Mar. to Apr.-June	
			Actual	Percentage
			<u>Dollars</u>	<u>Dollars</u>
<b>Retail cost</b>				
Market basket .....	1,064.12	1,068.42	-4.30	1/
Meat products .....	275.85	283.53	-7.68	-3
Dairy products .....	200.58	202.85	-2.27	-1
Poultry and eggs .....	83.02	94.28	-11.26	-12
Bakery and cereal products ..	167.71	167.31	.40	1/
All fruits and vegetables ..	248.26	233.66	14.60	6
Fats and oils .....	43.74	41.99	1.75	4
Miscellaneous products .....	44.96	44.80	.16	1/
<b>Farm value</b>				
Market basket .....	398.09	418.69	-20.60	-5
Meat products .....	134.45	147.75	-13.30	-9
Dairy products .....	87.38	90.91	-3.53	-4
Poultry and eggs .....	48.80	58.39	-9.59	-16
Bakery and cereal products ..	29.48	29.81	-.33	-1
All fruits and vegetables ..	75.69	70.45	5.24	7
Fats and oils .....	15.03	14.15	.88	6
Miscellaneous products .....	7.27	7.23	.04	1
<b>Farm-retail spread</b>				
Market basket .....	666.03	649.73	16.30	3
Meat products .....	141.40	135.78	5.62	4
Dairy products .....	113.20	111.94	1.26	1
Poultry and eggs .....	34.22	35.89	-1.67	-5
Bakery and cereal products ..	138.23	137.50	.73	1
All fruits and vegetables ..	172.57	163.21	9.36	6
Fats and oils .....	28.71	27.84	.87	3
Miscellaneous products .....	37.69	37.57	.12	1/

1/ Less than 0.5 percent.

accounted for much of the rise in the fruits and vegetables group.

Compared to the second quarter last year, the farm value was down 3 percent. In the first quarter this year it was 6 percent above a year earlier (table 1). The meat products and poultry and eggs groups declined 9 percent and 10 percent, respec-

tively, from the second quarter of 1960 to the quarter just ended. These decreases were partly offset by a 37-percent increase in the fats and oils group.

More information on the meat products, poultry and eggs, and fats and oils group is contained on pp. 8-10.)

#### Spread Increases 3 Percent in Second Quarter

The retail cost of the market basket did not change from the first to the second quarter, so the farm-retail spread rose 3 percent to \$666 (annual rate), more than the usual slight rise. <sup>2/</sup> Meat products and fresh fruits accounted for nearly all of the increase. The poultry and eggs group was the only major group for which the spread decreased. Apples and oranges showed the largest percentage increases for individual commodities (table 16 , p. 45 ).

The marketing spread in the April-June quarter also was 3 percent above a year ago. Again, meat products accounted for a large proportion of the increase; smaller increases in other groups, except fats and oils, also contributed. Sweet potatoes, oranges, and beef showed the largest year-to-year increases.

Some of the costs incurred by food marketing firms rose between the second quarter of 1960 and the same quarter this year. Average hourly earnings of employees engaged in food marketing increased 4 percent from May 1960 to May 1961 but this increase may have been entirely offset by improvements in output per man-hour. Construction costs increased slightly. Prices of materials and supplies which marketing firms buy also moved up, but prices of some other items declined. Interest rates on short-term loans were considerably lower in April-June 1961 than a year earlier. Total profits of firms engaged in food processing were about the same in the first quarter this year as in the first quarter of 1960.

Marketing charges during the remainder of the year probably will continue higher than a year earlier.

#### Little Change in Retail Cost

The retail cost of the market basket was about the same in the second quarter of 1961 as in the previous quarter. <sup>3/</sup> Relatively large changes among some product groups offset one another. A moderate decrease in the meat products group and a sharp decrease for poultry and eggs were

offset by a seasonal increase for the fruits and vegetables group and a smaller increase for fats and oils. Apples were the main reason for the increase in the fruits and vegetables group. Fresh vegetables increased less than seasonally (table 15 , p. 44 ).

<sup>2/</sup> The farm-retail spread or difference between the retail cost of the market basket and the farm value is an estimate of charges made by marketing agencies for assembling, processing, transporting, and distributing the products in the market basket. It is also referred to as the marketing margin or spread.

<sup>3/</sup> The retail cost of the market basket of farm foods is less than the retail cost of all goods bought per family. The market basket of farm foods does not include imported foods, fishery products and other foods of nonfarm origin, or costs of meals purchased in public eating places.

Compared to a year ago the April-June average for 1961 was about 1 percent higher. Decreases in meat products and poultry and eggs were more than offset by increases in all other groups. Fats and oils were 8 percent above a year earlier.

Sales of retail food stores in April were down from a year earlier, but in May sales rebounded and were about 3 percent

above May 1960. Sales by manufacturers of food and beverages were 1 percent lower in April 1961 than in April 1960.

Per capita disposable income was about the same in the second quarter this year as in the second quarter last year. (See table inside front cover.) The small increase in the quarter just ended was the first since the third quarter of 1960.

#### Farmer's Share Drops to 37 Percent

The farmer's share of the consumer's dollar spent in retail stores for farm food products dipped to about 37 cents in the April-June quarter this year, according to the preliminary data now available. It was the second time within 2 years that the quarterly average has been that low. However, the farm value in the second quarter this year was about 8 percent above the lowest quarterly average farm value during the 1947-61 period.

In the 7 calendar years since the Korean War the annual average farm value has fluctuated within 5 percent of \$407, yet the farmer's share declined from an annual average of 43 cents in 1954 to 38 cents in 1959. So far this year it has averaged 38 cents. Higher costs of marketing have been responsible for higher retail prices and mainly accounted for the decreasing farmer's share.

#### Farm Value of Beef and Lamb Decreases Sharply

The farm value of beef declined 14 percent and that of lamb 22 percent between April-June 1960 and April-June 1961 (table 15, p. 44). These decreases were partly offset by an increase in the farm value of pork. The total farm value of the meat products group was down 9 percent.

Most of the year-to-year decrease in the farm value of beef came in the quarter just ended when it dropped 11 percent below the first quarter to the lowest level since the second quarter of 1957. Marketings of steers and heifers at 12 leading markets in April and May were 10 and 5 percent larger respectively, than a year earlier. The retail cost of beef did not decline nearly as much as did the farm value; thus the margin was 12 percent above a year earlier and 9 percent higher than in the previous quarter. Farm prices usually decline more than do retail prices of meat in the short run. Most of the increase in the farm-retail spread from a year earlier was in the wholesale-retail segment (table 3), probably because retail

prices tend to be more rigid than wholesale and farm prices. The wholesale-retail segment increased 16 percent, while the farm-wholesale segment increased 5 percent.

The farm value of lamb reached its lowest level since 1946 in the second quarter this year. The 22-percent decline in the farm value from a year earlier was accompanied by an 11-percent decline in the retail cost. The combination of these changes resulted in a 3-percent rise in the spread. Compared with the first quarter, the farm value of lamb was down 4 percent and the retail price 6 percent; the spread was down 7 percent from the high level in the first quarter.

Slaughter of lambs in January-May this year totaled 15 percent more than in the same period of 1960. Favorable prices from early 1957 through early 1959 stimulated a rise in inventories through January 1, 1960. Producers reduced inventories sharply in the first half of this year. Marketing this spring may have

Table 3.--Beef (Choice grade): Live-wholesale and wholesale-retail spreads, by quarters, 1960-61 1/

Quarter	Live-wholesale (per 100 pounds live weight)					Wholesale-retail (per 100 pounds carcass weight)		
	Price of steers 2/	Wholesale value			Spread	Wholesale price 4/	Retail value 5/	Spread
		Carcass 3/	Byproducts	Total				
		Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1960								
	Jan.-Mar. ....	26.53	27.01	2.19	29.20	2.67	45.78	64.96
	Apr.-June ....	26.86	27.16	2.33	29.49	2.63	46.03	65.68
	July-Sept. ....	25.01	25.60	2.25	27.85	2.84	43.39	64.48
	Oct.-Dec. ....	25.28	25.26	2.21	27.47	2.19	42.81	63.92
	Average ....	25.92	26.26	2.24	28.50	2.58	44.50	64.80
1961								
	Jan.-Mar. ....	25.99	26.27	2.23	28.50	2.51	44.52	6/65.36
	Apr.-June 7/ ....	23.66	24.05	2.38	26.43	2.77	40.77	63.52
								22.75

1/ Quarterly data for 1949-59 are published in Marketing Costs and Margins for Livestock and Meats, U. S. Dept. Agr., Mktg. Res. Rpt. 418, Nov. 1960, tables 26 and 29.

2/ Weighted average of prices at 20 leading public stockyards.

3/ Wholesale carcass value is 59 percent of average wholesale price of 100 pounds of Choice grade carcass beef.

4/ Weighted average of prices of Choice grade carcass beef in New York, Chicago, Los Angeles, San Francisco, and Seattle.

5/ Calculated from average retail prices of beef cuts in urban areas, published by Bur. Labor Statistics. The retail value per 100 pounds carcass weight is 80 percent of average retail cost of 100 pounds of retail cuts, because about 20 pounds of a 100-pound carcass is fat, bone, and trim which is sold by retailers at nominal prices.

6/ Revised.

7/ Preliminary.

Table 4.--Pork: Live-wholesale and wholesale-retail spreads, by quarters, 1960-61 1/

Quarter	Live-wholesale (per 100 pounds live weight)				Wholesale-retail (per 100 pounds major cuts)		
	Price of hogs 2/	Wholesale value 3/	Spread	Wholesale value 4/	Retail value 5/	Spread	
		Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1960							
	Jan.-Mar. ....	14.27	19.68	5.41	38.02	52.05	14.03
	Apr.-June ....	16.94	21.82	4.88	41.79	6/55.97	6/14.18
	July-Sept. ....	17.40	22.65	5.25	42.96	6/58.94	6/15.98
	Oct.-Dec. ....	18.00	23.20	5.20	43.49	6/58.69	6/15.20
	Average ....	16.65	21.84	5.19	41.56	6/56.41	6/14.85
1961							
	Jan.-Mar. ....	18.16	23.29	5.13	43.25	6/59.34	6/16.09
	Apr.-June 7/ ....	17.46	22.22	4.76	41.09	57.76	16.67

1/ Quarterly data for 1949-59 are published in Marketing Costs and Margins for Livestock and Meats, U. S. Dept. Agr., Mktg. Res. Rpt. 418, Nov. 1960, tables 27 and 30.

2/ Average price of 200-220 pound barrows and gilts, Chicago.

3/ Wholesale value at Chicago of 71 pounds of pork and lard obtained from 100 pounds of live hog.

4/ Wholesale value of 100 pounds of major pork cuts at Chicago computed from Livestock Market News and National Provisioner price quotations of individual cuts.

5/ Calculated from average retail prices of major pork cuts in urban areas, published by Bur. Labor Statistics.

6/ Revised.

7/ Preliminary.

been speeded up by unsatisfactory pasture conditions in the Southwest.

Prices of beef cattle in the months ahead probably will remain below the same

period in 1960. Increased marketings of hogs later in the year are expected to depress prices below levels last year.

#### Farm Value of Frying Chickens Lowest on Record

For the first time since farm-retail spread statistics were reported in 1949, the quarterly average farm value of 1 pound (retail weight) of frying chicken dropped below 20 cents. The new low, 19.3 cents, was nearly 10 percent below the previous low in the fourth quarter of 1958. The April-June 1961 average was 20 percent lower than a year earlier (table 15, p. 44). Farm prices of frying chickens in some areas fell to 11 cents per pound in June. The U. S. average farm price in June was 12.8 cents compared with 17.6 cents in June 1960. Marketings of frying chickens have been at record levels during recent months.

The retail price of frying chicken in the second quarter also was the lowest on record, 9 percent below the April-June 1960 period. Much of the year-to-year decrease in both farm and retail values came in the second quarter this year. The farm value was 17 percent lower than

in the previous quarter; the retail price was 7 percent lower. The farm-retail spread increased moderately in the second quarter, and the farmer's share of the retail price dropped to 49 percent, two points below the previous low.

Prices of eggs also suffered sharp price reductions during the second quarter. The farm value declined 16 percent from the first quarter. Part of this reduction was seasonal. In recent years the farm value has declined by an average of 10 percent from the first to the second quarter. The retail price dropped 15 percent and the farm-retail spread 13 percent. Compared with a year earlier, the retail price was down 3 percent; the farm value was 5 percent lower; and the spread was 2 percent higher.

Prices of frying chickens and eggs probably will stay below year-ago levels during the rest of 1961,

#### Prices of Soybeans Up Sharply from Year Ago

The farm value of the fats and oils group rose 37 percent from the second quarter of 1960 to the same quarter this year. Much of the increase was the result of a 43-percent increase in the price of soybeans and a 19-percent increase in price of cottonseed; both of these commodities are used in making vegetable shortening, margarine, and salad dressing. The farm value of lard also was up. Increases in prices of soybeans, cottonseed, and lard reflected a small decrease in supplies of food fats during the current marketing year, with record domestic consumption, and near-record exports. Part of the increases were passed on to

the consumer but the marketing spread absorbed part. As a result the farm-retail spread decreased 2 percent from a year earlier. The retail cost increased 8 percent during the same period.

The farm value and retail cost increased between the first and second quarter this year, but the increases were smaller than the year-to-year changes. The marketing margin was 3 percent higher in the quarter just ended than in the previous quarter. Again higher soybean and cottonseed prices were the major reasons for the increases.

## THE FARM-FOOD MARKETING BILL 1/

The bill for marketing food products from this country's farms to civilian consumers was \$39.5 billion in 1960, 3 percent over 1959, a rise less than the average for the last decade (table 5). 2/ Most of the increase was attributable to the continuing rise in volume handled.

The total farm value of these food products, which fell in 1959 for the first time since 1955, returned to the 1958 level of \$20.7 billion in 1960, as

farmers' prices for food products turned up again.

Civilians spent \$60.2 billion for farm food products, up 3 percent from last year. After dipping in 1959, food-store prices rose in 1960, but less than the volume of food marketed. Prices of restaurant meals moved up moderately.

The marketing bill again constituted about 66 percent of civilian expenditures for farm foods.

### The Components of the Marketing Bill

#### Labor

Direct labor costs in 1960 for marketing domestic farm foods to civilian consumers amounted to \$19.0 billion, 3 percent over 1959, and 48 percent of the total marketing bill (table 6). Workers' hourly earnings rose 3 percent, but labor cost per unit of product marketed remained the same as for the 2 years preceding, reflecting a continuing increase in output per man-hour (table 7).

A 60-percent increase in total labor cost for farm food marketing in the last decade reflected an approximately equal rise in hourly earnings; the increase in number of hours worked was about 3 percent. During the same period, labor cost per unit marketed increased less than half as much as total labor cost,

with a 30-percent increase in volume marketed.

#### Transportation

Estimated charges for intercity rail and truck transportation of the food products covered by the marketing bill totaled \$4.1 billion in 1960, the same as in 1959. Transportation charges made up about 10 percent of the total marketing bill in both years. A slight increase in 1960 in the volume of products shipped was offset by a small reduction in the average level of rates. The Interstate Commerce Commission granted the railroads an increase in rates effective October 24, 1960, but this increase was so small and came so late that it had little effect on the average rail level of rates for the year.

1/ A more extensive discussion of the marketing bill and its components was published in the July 1959 issue of this Situation (MTS-134), pp. 10-21. Reprints of that article, "The Marketing Bill for Farm Food Products," (AMS-326) are available from the Division of Information, Management Operations Staff, Agricultural Economics.

2/ This marketing bill is the difference between the total expenditures by civilian consumers for domestic farm food products and the farm value or payment that farmers received for the equivalent farm products. It is an estimate of the total charges for transporting, processing, wholesaling, and retailing farm foods. Food sold in the form of meals in restaurants and other eating places and that sold at less than retail prices is valued at the point of sale. These estimates do not include the value of food products not produced on farms in the United States, foods consumed on farms where produced, or foods not sold to civilian consumers in this country. Another estimate of marketing charges, the farm-retail marketing bill, is considered later in this article. The difference between the two estimates is discussed in footnote 3 of this article and more fully in the November 1958 issue of this Situation (MTS-131). Estimates of the marketing bill and related statistics do not cover Alaska and Hawaii because of inadequate data.

Table 5.--The total marketing bill, farm value, and consumer expenditures for domestic farm food products bought by civilians, United States, 1929-60

Year	Total	Farm	Civilian	Year	Total	Farm	Civilian
	marketing bill 1/	value	expendi- tures for farm foods		marketing bill 1/	value	expendi- tures for farm foods
	Billion dollars	Billion dollars	Billion dollars		Billion dollars	Billion dollars	Billion dollars
1929 .....	9.7	7.2	16.9	1948 .....	22.9	19.3	42.2
1930 .....	9.9	6.3	16.2	1949 .....	23.9	16.9	40.8
1931 .....	8.6	4.7	13.3	1947-49 av. ...	22.5	18.3	40.8
1932 .....	7.5	3.4	10.9	1950 .....	23.9	17.6	41.5
1933 .....	7.3	3.6	10.9	1951 .....	26.4	20.0	46.4
1934 .....	7.5	4.3	12.1	1952 .....	28.3	19.9	48.2
1935 .....	7.3	5.0	12.6	1953 .....	29.3	19.0	48.3
1936 .....	8.2	5.8	14.0	1954 .....	30.4	18.4	48.8
1937 .....	8.1	6.0	14.1	1955 .....	32.2	18.3	50.5
1938 .....	8.4	5.2	13.6	1956 .....	34.0	18.7	52.7
1939 .....	8.6	5.2	13.8	1957 .....	35.6	19.5	55.1
1940 .....	9.1	5.6	14.7	1958 .....	37.0	20.7	57.7
1941 .....	9.9	7.1	17.0	1959 .....	38.4	20.0	58.4
1942 .....	11.7	9.3	21.0	1960 2/ .....	39.5	20.7	60.2
1943 .....	12.6	11.4	23.8	1961 .....			
1944 .....	13.3	11.6	24.4	1962 .....			
1945 .....	14.9	12.6	26.8	1963 .....			
1946 .....	18.3	15.7	33.5	1964 .....			
1947 .....	20.7	18.7	39.4				

1/ Difference between civilian expenditures and farm value except that Federal processor taxes have been deducted for 1933-35 and allowances for Federal Government payments to processors have been added for 1943-46.

2/ Preliminary.

Estimates in this table do not cover Alaska and Hawaii because of inadequate data.

And its effect was more than offset by selective rail rate reductions during the year. On the basis of available data, motor carrier rates were about the same in 1960 as in 1959.

Charges for the protective service, heating and refrigeration, are included in the transportation bill.

#### Corporate Profits

Five percent or \$2.1 billion of the marketing bill was accounted for by profits (before taxes) of corporations marketing farm foods (excluding transportation companies). Profits accounted for 5 percent

of the marketing bill in 1959, and for 6 percent during 1947-49. More than half of the corporate profits in 1960 was paid to the Federal Government in income taxes. In 1947-49 about 43 percent of total profits went for income taxes. Profits per unit of product marketed stayed the same in 1960 as in 1959 (table 7). Unit profits before taxes have been higher in recent years than in 1947-49, but after-tax profits have been lower.

Profits of leading firms.--The ratio of profits (after income taxes) to sales for a group of 45 leading food processors was the same in 1960 as in 1959 (table 8). The ratio of profits to sales increased sharply for the miscellaneous group of

Table 6.--Labor, transportation, corporate profits, and other costs for marketing farm food products, United States, 1939-60 1/

Year	Labor 2/	Rail and truck transportation 3/	Corporate profits 4/			Total marketing bill
	Billion dollars	Billion dollars	Billion dollars	Before taxes	After income taxes	
1939 .....	4.3	1.0	0.3	0.3	3.0	8.6
1940 .....	4.5	1.1	.4	.3	3.1	9.1
1941 .....	4.9	1.2	.6	.4	3.2	9.9
1942 .....	5.3	1.0	.8	.4	4.6	11.7
1943 .....	5.5	1.0	1.1	.5	5.0	12.6
1944 .....	6.0	1.1	1.1	.5	5.1	13.3
1945 .....	6.6	1.3	1.1	.5	5.9	14.9
1946 .....	8.3	1.6	1.7	1.1	6.7	18.3
1947 .....	9.7	2.0	1.5	1.0	7.5	20.7
1948 .....	10.8	2.2	1.3	.8	8.6	22.9
1949 .....	11.3	2.3	1.3	.7	9.0	23.9
1947-49 av. .....	10.6	2.2	1.4	.8	8.3'	22.5
1950 .....	11.9	2.6	1.6	.9	7.8	23.9
1951 .....	12.7	2.6	1.3	.6	9.8	26.4
1952 .....	13.5	3.0	1.4	.6	10.4	28.3
1953 .....	14.3	3.2	1.5	.7	10.3	29.3
1954 .....	15.0	3.3	1.5	.7	10.6	30.4
1955 .....	15.6	3.2	1.8	.9	11.6	32.2
1956 .....	16.4	3.5	1.8	.9	12.3	34.0
1957 .....	17.2	3.6	1.8	.8	13.0	35.6
1958 .....	17.8	3.9	1.8	.8	13.5	37.0
1959 6/ .....	18.5	4.1	2.0	1.0	13.8	38.4
1960 6/ .....	19.0	4.1	2.1	1.0	14.3	39.5

1/ Relate only to domestic farm foods bought by civilian consumers and not to that sold to the Armed Forces or exported.

2/ Does not include the cost of labor employed in intercity for-hire transportation because payments made for transportation also are compared with the total marketing bill.

3/ Does not include local hauling; charges for intercity transportation by water and air are a part of the "other" or residual component of the marketing bill.

4/ Does not include profits of unincorporated firms or firms engaged in intercity transportation.

5/ Includes other costs such as fuel, electric power, containers, packaging materials, air and water transportation, interest on borrowed capital, taxes other than those on income, and non-corporate profits.

6/ Preliminary.

Table 7.--Average hourly earnings and labor costs, profits, and marketing charges per unit of product for marketing food products, United States, 1939-60 <sup>1/</sup>

(Index numbers 1947-49 = 100)

Year	Hourly	Unit	Profit per unit of	Unit
	earnings	labor cost	product <sup>4/</sup>	marketing
	<sup>2/</sup>	<sup>3/</sup>	Before taxes	After taxes <sup>5/</sup>
1939 .....	46	52	33	43
1940 .....	47	53	34	42
1941 .....	51	56	53	54
1942 .....	57	58	72	58
1943 .....	60	61	94	68
1944 .....	65	66	95	65
1945 .....	70	70	88	64
1946 .....	81	79	127	130
1947 .....	93	91	111	116
1948 .....	99	102	96	93
1949 .....	108	107	93	91
1947-49 average ...	100	100	100	100
1950 .....	112	108	115	104
1951 .....	119	116	96	72
1952 .....	124	118	95	69
1953 .....	132	121	101	75
1954 .....	138	123	95	72
1955 .....	142	123	110	88
1956 .....	149	124	109	86
1957 .....	158	130	106	81
1958 .....	165	134	105	82
1959 .....	174	134	116	91
1960 <sup>6/</sup> .....	180	134	116	91
				136

<sup>1/</sup> Relates only to domestic farm-produced foods bought by civilian consumers in this country and not to that sold to the Armed Forces or exported.

<sup>2/</sup> Hourly earnings estimated by dividing total labor cost by total man-hours for all workers. These data include proprietors and family workers not receiving stated remuneration and workers engaged in intercity rail and truck transportation.

<sup>3/</sup> Unit labor cost is the quotient of the indexes of total labor cost and of volume of farm food products marketed to civilian consumers. The index of farm food products marketed was constructed by weighting the quantities sold by 1947-49 average retail prices.

<sup>4/</sup> Profit per unit of product is the quotient of the index of total corporate profits from marketing farm foods produced and consumed in the United States and the index of the volume of farm food products marketed.

<sup>5/</sup> Calculated from annual average spreads between retail cost of a constant market basket of farm food products and payments received by farmers for equivalent farm products; margin has been adjusted for subsidies to marketing firms. The farm-retail spreads are published in this Situation, table 1, p. 5.

<sup>6/</sup> Preliminary.

Table 8.--Net profits (less provision for taxes on income) as percentage of stockholders' equity and as percentage of sales, leading food and tobacco companies, 1935-60

Year	Food processing companies										Percent	Percent
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent		
Profits as percentage of stockholders' equity <sup>2/</sup>												
Average												
1935-39 ...	8.1	9.7	3.6	5.6	7.9	9.8	7.2	---	8.4	13.9		
1940-44 ...	8.7	9.6	7.4	8.6	10.5	9.3	8.9	---	8.5	11.5		
1945 .....	10.1	10.9	5.2	9.9	10.0	8.1	8.2	12.7	8.2	9.2		
1946 .....	18.4	13.2	9.9	18.4	17.0	12.6	13.6	27.3	18.7	11.4		
1947 .....	15.8	15.7	12.6	12.8	13.2	14.6	13.9	18.8	17.8	12.6		
1948 .....	17.9	14.6	5.6	9.6	12.5	13.5	11.3	16.0	16.2	14.8		
1949 .....	16.8	13.8	3.7	5.9	14.5	10.5	10.0	12.5	15.7	15.2		
1950 .....	15.8	13.4	5.9	15.4	13.3	12.6	11.5	10.0	14.0	13.5		
1951 .....	11.9	11.0	5.0	6.9	10.3	9.0	8.5	9.4	10.1	9.9		
1952 .....	12.4	11.0	3.7	7.5	9.9	9.0	8.2	5.8	10.0	9.5		
1953 .....	12.7	10.7	6.6	6.6	11.1	9.3	9.2	7.6	11.4	10.1		
1954 .....	11.9	12.4	2.7	7.8	12.2	9.9	8.9	7.5	11.3	10.6		
1955 .....	12.0	12.4	6.5	10.1	12.0	10.4	10.2	6.7	11.2	12.0		
1956 .....	12.2	11.7	6.9	8.2	12.1	11.2	10.3	7.6	13.1	12.1		
1957 .....	12.5	12.8	3.9	5.9	11.8	11.4	9.6	7.6	14.2	12.8		
1958 .....	11.7	13.4	4.2	8.4	11.5	12.5	10.2	9.7	13.8	14.6		
1959 .....	11.8	11.6	7.4	8.1	11.3	12.0	10.5	8.1	12.9	14.8		
1960 <sup>3/</sup> ...	11.5	<sup>4/</sup>	5.9	<sup>4/</sup>	10.7	12.4	10.2	10.1	12.4	14.6		
Food processing companies												
Average												
1935-39 ...	6.9	3.8	0.9	3.1	3.1	8.6	3.0	---	1.5	9.1		
1940-44 ...	4.6	3.0	1.3	3.4	2.9	6.3	2.6	---	1.1	5.7		
1945 .....	3.5	2.6	.9	3.7	2.3	4.0	2.0	1.0	1.0	3.8		
1946 .....	5.8	2.8	1.7	6.1	3.5	6.0	3.3	2.2	1.8	4.0		
1947 .....	4.5	2.9	1.4	4.7	2.6	5.6	2.6	1.8	1.4	4.3		
1948 .....	4.9	3.3	.6	3.7	2.5	5.5	2.2	1.8	1.3	5.0		
1949 .....	5.0	3.6	.5	2.4	3.3	4.8	2.1	1.5	1.4	5.4		
1950 .....	4.9	3.1	.8	5.3	3.2	5.3	2.5	1.2	1.3	5.1		
1951 .....	3.5	2.3	.6	2.5	2.2	3.7	1.7	1.1	.9	3.8		
1952 .....	3.6	2.5	.4	2.7	2.1	3.6	1.6	.7	.8	3.4		
1953 .....	3.5	2.5	.8	2.3	2.3	3.6	1.9	1.0	1.0	3.8		
1954 .....	3.5	2.9	.3	2.8	2.6	3.8	1.9	1.0	1.0	4.3		
1955 .....	3.4	3.1	.8	3.6	2.6	4.0	2.2	.9	1.0	4.9		
1956 .....	3.4	2.9	.8	2.9	2.6	4.0	2.2	1.0	1.1	5.0		
1957 .....	3.4	3.4	.5	2.2	2.6	4.1	2.1	.9	1.2	5.2		
1958 .....	3.4	3.7	.5	3.0	2.6	4.3	2.2	1.2	1.2	5.7		
1959 .....	3.3	3.2	.9	3.0	2.6	4.3	2.4	1.1	1.2	5.8		
1960 <sup>3/</sup> ...	3.2	<sup>4/</sup>	.8	<sup>4/</sup>	2.5	4.6	2.4	1.2	1.2	5.8		

<sup>1/</sup> Includes sugar and corn refining companies, processors of vegetable oils, and companies manufacturing a wide variety of packaged foods. <sup>2/</sup> Ratio of net profits to average of stockholders' equity at the beginning and end of the year. Stockholders' equity is excess of total balance sheet assets over liabilities.

<sup>3/</sup> Preliminary. <sup>4/</sup> Not available.

Compiled from Moody's "Industrial Manual" and company annual reports.

companies, but the increase was more than offset by small decreases in the ratios for baking, meat packing, and dairy products groups. The average profit-to-sales ratio for eight leading retail food chains was the same as in the 3 preceding years. The ratio was slightly lower than in 1947-49.

The ratio of profits (after taxes) to stockholders' equity for 50 leading food processing companies declined in 1960. For meat packers the ratio declined sharply from the relatively high level in 1959. Ratios for baking companies and dairy products companies also declined. These decreases were partly offset by an increase for the miscellaneous group. Profits as a percentage of stockholders' equity for eight leading retail food chains declined for the third consecutive year.

#### Other Costs and Noncorporate Profits

Other costs and noncorporate profits, the residual component of the marketing bill, increased again in 1960 as it has each year since 1953 (table 6). The increase pushed other costs to a new record, 72 percent above the 1947-49 average. The marketing bill increased 76 percent during the same period. Included in other costs are containers, depreciation, electric power, fuel, interest on borrowed capital, rents, advertising, taxes other than those on income, transportation other than intercity rail and truck, and many other costs. This residual component accounted for 36 percent of the marketing bill in 1960, the same proportion as in 1959 and about the same as in 1947-49.

#### The Farm-Retail Marketing Bill

The farm-retail marketing bill increased about 3 percent in 1960, as did the total marketing bill (table 9). 3/ As in 1959, the marketing bill increased for each product except poultry and eggs. The volume of marketings was larger than in 1959 for all products groups. For poultry and eggs, however, the expansion in volume was offset by a decrease in unit marketing charges. Unit marketing charges also were down for the meat products group.

Farm values were higher in 1960 for the meat products, poultry and eggs, and fruits and vegetables groups, and were the same as in 1959 for the dairy products and bakery and cereal products groups.

The retail-store cost of these food products rose by more than \$1 billion in 1960. Retail costs for all product groups were up; increases ranged from 1 percent for the dairy products group to 9 percent for poultry and eggs. The retail cost of the meat products group, the largest of the products groups, was up 2 percent. The fruit and vegetable group, second largest, rose 4 percent. For the past decade, the rise has been 42 percent in the total retail-store cost of these foods compared with the steeper rise, 45 percent, in civilian expenditures for these foods, which include restaurant meals (table 5).

3/ The farm-retail marketing bill covers the same food products as the total marketing bill, but in deriving the farm-retail marketing bill all food products are valued in terms of retail food-store prices. Since it does not include the extra cost of food served in eating places, the farm-retail marketing bill is smaller than the total marketing bill. The farm value is the same in both sets of data. In recent years both marketing bills have risen at about the same rate.

Table 9.--Farm-retail marketing bill for domestic farm food products purchased by civilian consumers, farm value, and retail cost, all farm foods and five major commodity groups, United States, annual 1913-1960 1/

Year	All farm foods 2/			Meat products			Dairy products			Poultry and eggs			Bakery and cereal products			Fruits and vegetables		
	Mar- ket- ing bill	Farm value	Re- tail cost															
	Bil. dol.	Bil. dol.	Bil. dol.															
1913 .....	3.88	3.53	7.41	0.91	1.35	2.26	0.61	0.62	1.23	0.21	0.45	0.66	0.98	0.44	1.42	0.89	0.55	1.44
1914 .....	4.27	3.64	7.91	.91	1.35	2.26	.64	.64	1.28	.20	.47	.67	1.13	.49	1.62	1.11	.58	1.69
1915 .....	4.36	3.63	7.99	.95	1.21	2.16	.67	.66	1.33	.20	.48	.68	1.15	.59	1.74	1.05	.56	1.61
1916 .....	5.12	4.35	9.47	.99	1.50	2.49	.70	.74	1.44	.22	.53	.75	1.31	.68	1.99	1.46	.71	2.17
1917 .....	6.35	6.05	12.40	1.00	2.03	3.03	.74	.94	1.68	.26	.68	.94	1.63	1.15	2.78	2.13	.97	3.10
1918 .....	6.32	6.87	13.19	1.45	2.51	3.96	.79	1.09	1.88	.36	.83	1.19	1.40	1.05	2.45	1.68	1.04	2.72
1919 .....	7.67	7.55	15.22	1.64	2.50	4.14	1.04	1.34	2.38	.42	1.03	1.45	1.69	1.21	2.90	2.20	1.13	3.33
1920 .....	9.16	7.36	16.52	1.97	2.15	4.12	1.13	1.40	2.53	.48	1.10	1.58	1.99	1.17	3.16	2.91	1.30	4.21
1921 .....	7.52	5.05	12.57	2.05	1.40	3.45	1.19	1.15	2.34	.39	.77	1.16	1.80	.62	2.42	1.69	.95	2.64
1922 .....	7.69	5.19	12.88	1.93	1.56	3.49	1.17	1.14	2.31	.37	.75	1.12	1.77	.59	2.36	1.98	.99	2.97
1923 .....	8.38	5.62	14.00	2.19	1.58	3.77	1.26	1.39	2.65	.41	.83	1.24	1.84	.59	2.43	2.12	1.03	3.15
1924 .....	8.64	5.87	14.51	2.34	1.73	4.07	1.25	1.34	2.59	.45	.86	1.31	1.85	.67	2.52	2.25	1.06	3.31
1925 .....	8.96	6.77	15.73	2.18	2.10	4.28	1.36	1.47	2.83	.45	.96	1.41	1.94	.87	2.81	2.45	1.15	3.60
1926 .....	9.43	6.95	16.38	2.17	2.18	4.35	1.40	1.53	2.93	.46	1.03	1.49	2.07	.80	2.87	2.74	1.22	3.96
1927 .....	9.51	6.72	16.23	2.21	2.04	4.25	1.47	1.62	3.09	.44	.96	1.40	2.16	.74	2.90	2.61	1.14	3.75
1928 .....	9.33	6.94	16.27	2.17	2.11	4.28	1.50	1.69	3.19	.48	1.05	1.53	2.24	.74	2.98	2.34	1.13	3.47
1929 .....	9.86	7.22	17.08	2.22	2.23	4.45	1.57	1.76	3.33	.58	1.12	1.70	2.18	.68	2.86	2.68	1.21	3.89
1930 .....	9.82	6.33	16.15	2.31	1.94	4.25	1.56	1.57	3.13	.58	.93	1.51	2.22	.56	2.78	2.55	1.13	3.68
1931 .....	8.40	4.66	13.06	2.21	1.37	3.58	1.41	1.25	2.66	.49	.71	1.20	1.89	.35	2.24	1.98	.86	2.84
1932 .....	7.21	3.40	10.61	1.76	.91	2.67	1.24	.97	2.21	.34	.54	.88	1.65	.26	1.91	1.68	.61	2.29
1933 .....	7.30	3.56	10.93	1.68	.92	2.61	1.21	.96	2.17	.32	.48	.80	1.60	.34	2.00	1.86	.73	2.59
1934 .....	7.92	4.27	12.52	1.90	1.13	3.26	1.24	1.12	2.36	.40	.58	.98	1.81	.47	2.38	2.03	.80	2.83
1935 .....	7.58	5.02	12.94	1.70	1.49	3.39	1.29	1.29	2.58	.34	.75	1.09	1.75	.52	2.41	2.02	.79	2.81
1936 .....	8.51	5.78	14.29	2.00	1.79	3.79	1.39	1.42	2.81	.39	.77	1.16	1.93	.58	2.51	2.22	1.00	3.22
1937 .....	8.20	5.98	14.18	2.05	1.90	3.95	1.41	1.49	2.90	.43	.81	1.24	1.92	.61	2.53	1.81	.95	2.76
1938 .....	8.18	5.20	13.39	1.86	1.71	3.57	1.40	1.32	2.72	.39	.77	1.16	2.01	.41	2.42	1.78	.78	2.56
1939 .....	8.19	5.17	13.37	1.85	1.69	3.54	1.44	1.32	2.76	.38	.72	1.10	1.87	.39	2.26	1.93	.86	2.79
1940 .....	8.5	5.6	14.1	1.9	1.8	3.7	1.5	1.5	3.0	.4	.8	1.2	1.9	.4	2.3	2.0	.9	2.9
1941 .....	9.2	7.1	16.3	1.8	2.5	4.3	1.7	1.7	3.4	.4	1.0	1.4	2.0	.5	2.5	2.2	1.1	3.3
1942 .....	10.5	9.3	19.8	1.7	3.2	4.9	2.0	2.1	4.1	.6	1.4	2.0	2.2	.7	2.9	2.6	1.5	4.1
1943 .....	11.1	11.4	22.3	1.8	3.6	5.2	2.0	2.3	4.3	.7	2.0	2.7	2.4	.9	3.3	2.4	2.1	5.0
1944 .....	11.4	11.6	22.5	1.9	3.7	5.3	2.0	2.5	4.5	.7	1.8	2.5	2.3	.9	3.1	3.1	2.3	5.3
1945 .....	12.5	12.6	24.4	1.7	3.7	5.0	2.2	2.6	4.8	.8	2.3	3.1	2.6	1.0	3.5	4.0	2.5	6.4
1946 .....	15.6	15.7	30.8	2.4	5.2	7.3	2.8	3.5	6.3	1.0	2.4	3.4	3.0	1.3	4.2	4.7	2.6	7.2
1947 .....	18.0	18.7	36.7	3.4	7.3	10.7	3.1	3.8	6.9	1.1	2.7	3.8	3.3	1.5	4.8	5.3	2.6	7.9
1948 .....	19.9	19.3	39.2	3.8	7.5	11.3	3.5	4.1	7.6	1.2	3.0	4.2	3.9	1.5	5.4	5.4	2.4	7.8
1949 .....	20.8	16.9	37.7	4.0	6.5	10.5	3.4	3.5	6.9	1.2	2.8	4.0	4.3	1.2	5.5	5.6	2.3	7.9
1950 .....	20.9	17.6	38.5	4.1	7.2	11.3	3.4	3.6	7.0	1.3	2.6	3.9	4.3	1.3	5.6	5.5	2.2	7.7
1951 .....	22.8	20.0	42.8	4.2	8.0	12.2	3.9	4.1	8.0	1.5	3.2	4.7	4.7	1.4	6.1	6.1	2.5	8.6
1952 .....	24.5	19.9	44.4	4.9	7.6	12.5	4.1	4.3	8.4	1.5	3.1	4.6	4.9	1.4	6.3	6.5	2.8	9.3
1953 .....	25.5	19.0	44.5	5.4	7.1	12.5	4.3	3.9	8.2	1.5	3.3	4.8	5.0	1.4	6.4	6.7	2.5	9.2
1954 .....	26.5	18.4	44.9	5.4	7.2	12.6	4.5	3.8	8.3	1.6	2.7	4.3	5.1	1.4	6.5	6.9	2.5	9.4
1955 .....	28.0	18.3	46.3	6.2	6.7	12.9	4.8	4.0	8.8	1.5	2.9	4.4	5.2	1.3	6.5	7.4	2.6	10.0
1956 .....	29.6	18.7	48.3	6.5	6.7	13.2	5.0	4.2	9.2	1.6	2.9	4.5	5.4	1.3	6.7	7.8	2.8	10.6
1957 .....	30.9	19.5	50.4	6.6	7.6	14.2	5.3	4.3	9.6	1.7	2.8	4.5	5.6	1.3	6.9	7.9	2.7	10.6
1958 .....	32.1	20.7	52.8	6.6	8.6	15.2	5.6	4.3	9.9	1.9	3.0	4.9	5.9	1.3	7.2	8.0	2.7	10.7
1959 .....	33.1	20.0	53.1	7.3	8.2	15.5	5.6	4.3	9.9	1.9	2.6	4.5	6.1	1.2	7.3	8.5	2.9	11.4
1960 4/.....	34.0	20.7	54.7	7.5	8.3	15.8	5.7	4.3	10.0	1.9	3.0	4.9	6.4	1.2	7.6	8.8	3.0	11.8

1/ Retail-cost estimates represent cost at retail food store prices of all domestic farm foods that were both sold by farmers and bought by civilian consumers in this country. Farm food products sold in the form of meals are included but are valued at what the food would have cost in retail stores. Farm value is adjusted to eliminate imputed value of nonfood byproducts. The farm-retail marketing bill is the difference between the farm value and retail cost except for the years 1933-35 and 1943-46 in which the marketing bill for some groups is adjusted for processor taxes or Government payments to processors.

2/ Includes vegetable-oil products, sugar, and other food products in addition to the five commodity groups given in this table.

3/ The estimated farm values of milk, eggs, fruits, lard, and vegetable shortening used in bakery products were deducted from the farm values of other commodity groups and added to the farm value of the bakery and cereal products group.

4/ Preliminary estimates.

MARKETING HAWAII'S AGRICULTURAL PRODUCTS 1/

The large producers of sugar and pineapple, Hawaii's principal agricultural products, process and distribute their own crops and those of smaller producers. Competition encountered by both products has been increasing and is expected to become stronger. Producers are meeting competition by promotion and product improvement.

Hawaii imports many farm products. Most of these could be produced in Hawaii, but it is more advantageous to specialize in products in which the State has a comparative advantage. Production of poultry and eggs has expanded rapidly in recent years, and price premiums local products receive over imported products have declined. Further reductions are expected if local producers supply a larger share of the market. Producers have maintained the premium for locally produced pork by supplying a decreasing proportion of the growing market. Production of livestock and livestock products is limited by shortage of feed concentrates.

Farmers on islands other than Oahu have hesitated to increase production for the Honolulu market because of the lack of fast, economical transportation among the islands. The State government and private interests are trying to improve transportation.

Since World War II supermarkets have replaced many smaller retail food stores. As a result of an increase in direct buying by retailers from producers, several wholesale firms have discontinued business. Direct buying is expected to increase, causing big changes in marketing institutions and practices.

Growth in population will swell the market for food products. Hawaiian farmers may also supply a larger part of the food bought for the Armed Forces stationed in the State. Aggressive marketing may develop more extensive export markets for coffee, some sub-tropical fruits, macadamia nuts, and other specialty products.

The Physical and Economic Setting

The 50th State is separated from the mainland United States by over 2,000 miles of the Pacific Ocean. It is even farther removed from the important population and trading centers of Asia and Oceania.

Hawaii is made up of a chain of seven principal islands extending over 390 miles and separated one from another by channels that vary from 8 miles to 72 miles in width. (See map on cover.) The total land area of these major islands

1/ Prepared by C. W. Peters, Agricultural Economist and Head, Department of Agricultural Economics, Hawaii Agricultural Experiment Station, and Professor of Agriculture, College of Tropical Agriculture, University of Hawaii.

An article, "Marketing of Farm Products in Alaska - Our 49th State", was published in the April 1961 issue of this Situation. Reprints of the article, ERS-3, may be obtained from the Division of Information, Management Operations Staff, Agricultural Economics.

is approximately 6,400 square miles with individual islands varying from 4,030 square miles for the island of Hawaii to 72 square miles for Niihau. Of this land area it is estimated that about 1,400,000 acres are currently devoted to agriculture, but only 315,000 acres are used for cultivated crops. The bulk of the cultivated lands are located on slopes leading upward from the sea and in saddle areas between mountains. The State has only one short river, although numerous small streams flow intermittently depending upon rainfall.

Climatically, Hawaii is subtropical and has a continuous summer temperature. Temperature ranges at the lower elevations are narrow, and the location of the Islands also tends to maintain a relatively constant day-night relationship throughout the year. Rainfall varies greatly depending in large part upon elevation and exposure to trade winds. Thus, the windward portions and the higher sections, except those over 5,000 feet, are generally moist. The land resources are primarily volcanic in origin and much of the area is mountainous and rough. When managed properly the cultivated lands of the Islands have proved to be very productive. A wide variety of crops, other than most deciduous tree fruits and small grains, is produced commercially, and livestock is an important source of agricultural income.

According to the 1960 Census, the population of Hawaii was 632,772.

Density of population varies from island to island, but 80 percent of the total was listed for Oahu, the island where Honolulu is located. This extreme concentration of population on Oahu where the density is almost 850 per square mile has a marked effect on the marketing of locally produced commodities that are consumed in the Islands.

The geographic position of the 50th State has a marked influence on its economic characteristics. As an outpost of the United States and a crossroads of transportation routes in the Pacific, the Islands have developed into an important operational center for military, airline, and shipping services. Hawaii has long been noted as a tourist attraction and this activity has been assuming increasing importance as a source of income during recent years.

Sugar and pineapple are the foundation of the agricultural sector of the State's economy. These crops are particularly well adapted to the subtropical conditions that prevail in the Islands.

The marketing of both imported <sup>2/</sup> and locally produced farm commodities is influenced by the basic structure of the Island economy. As an indication of the nature of Hawaii's economic base, it is of interest that the following totals accounted for the bulk of the business activity in the State during 1960:

	<u>Million dollars</u>
Retail trade . . . . .	812.0
Defense expenditures . . . . .	373.1
Wholesale trade . . . . .	358.1
Agriculture . . . . .	282.7
Construction . . . . .	275.4
Manufacturing . . . . .	146.9
Tourist expenditures . . . . .	135.0
Federal nonmilitary expenditures . . . . .	109.0

<sup>2/</sup> Imported is used herein to indicate goods reaching Hawaii from any source outside the State. Exported refers to shipments destined to points outside the State.

During this period employment averaged about 97 percent of the available labor force. The gross State product or aggregate value of all goods and services

produced in 1960 was estimated at \$1.7 billion and total personal income was \$1.4 billion.

### The Agricultural Situation 3/

Agriculture in Hawaii is made up of two broad categories; the first consists of the sugar and pineapple operations where the plantation-type enterprise is dominant and the other is the diversified sector where the average farm unit is small (table 10). Cattle ranches and a number of fruit and nut orchards fall between these two groups. By local definition diversified farming in the Islands consists of all agricultural activities other than the growing of sugar and pineapple. Although the acreage of the diversified farm may be small, the physical size alone is somewhat misleading because of multiple cropping with a year around growing season in most parts of the State. There are approximately 35 plantation units and over 5,000 smaller type commercial farms (including independent sugarcane and pineapple growers) in the 50th State.

Among the agricultural products of Hawaii, several enter importantly into the balance of trade situation. The principal export crops are sugar and pineapple, although other items such as coffee, tropical fruits, macadamia nuts, and floral products are shipped in volume to the mainland. The effective working of the law of comparative advantage so far as Hawaii's agriculture is concerned is indicated in part at least by the fact

that the State imports substantial quantities of fruits, vegetables, and livestock products that could be produced locally but usually at a higher cost. So long as shipping service is available between Hawaii and the mainland and the transportation rates are within reason, it is likely that the Island farmers will continue to turn out the commodities in which they possess an advantage of cost or location. In sugar, for example, Hawaii has developed its production techniques to the point where it has the highest yield per acre in the world. Also, the industry has been a leader in mechanization of production.

Within rather broad limits the Hawaii farmer is protected by the location of the Islands in relation to other sources of supply. So long as local output is less than market requirements the price tends to reflect the cost of shipping directly competitive products to Hawaii, usually from the Pacific Coast. Conversely, the Hawaii price of export items would normally approach the level of the mainland price less the cost of transportation. This aspect of the pricing mechanism is a most important consideration in those cases where it is proposed to develop further the mainland or foreign markets for Hawaii farm products.

#### Plantation Crops

##### Sugar

Sugar has for many years been the leading commodity in Hawaii's agriculture.

The State generally supplies about one-fifth of the sugar produced in the United States and accounts for some 10 to 11

3/ Data reported in this section and at most points herein are based primarily on "Statistics of Hawaiian Agriculture - 1959" and subsequent reports released by the Hawaii Cooperative Crop and Livestock Reporting Service, University of Hawaii, Honolulu. Reports published periodically by the Bank of Hawaii are also a major source of statistical data.

Table 10.--Quantity and value of agricultural products marketed,  
Hawaii, 1960

Product	Quantity	Value <u>1/</u>
	<u>Unit</u>	<u>Thousands</u>
Sugar .....	Ton	936
Pineapple products .....	Case	14,287
Livestock and products:		
Market milk .....	Quart	52,991
Beef and dairy cattle ....	Pound	24,780
Hogs .....	do.	11,644
Poultry meat .....	do.	5,643
Eggs .....	Dozen	10,716
Honey and beeswax .....	Pound	243
Total .....		32,174
Diversified crops:		
Fruits .....	Pound	20,910
Vegetables and melons ....	do.	48,035
Coffee .....	do.	12,999
Macadamia nuts .....	do.	2,616
Taro .....	do.	9,706
Rice .....	do.	221
Total .....		10,548
All products .....		282,722

1/ Only the values indicated for diversified crops are computed on the basis of prices received by farmers. Some commodities such as floral products, sheep, alfalfa, etc., are not reported and are thus excluded from the total.

percent of the total quantity consumed. In most years since 1952 the value of Hawaii's sugar products has approached \$150 million. This figure represents the output of 27 plantation and of some 1,200 independent cane growers who market their sugar through the plantation-owned facilities. All but one of the plantations own and operate sugar mills in which the cane is processed into raw sugar and molasses. Other byproducts are bagasse, pith, etc.

All of Hawaii's sugar and molasses is handled by the California and Hawaiian Sugar Refining Corporation, which operates refineries at Crockett, Calif., and Aiea, Hawaii, and has a working arrangement with a refinery in Texas. The "C & H" is an agricultural cooperative and its well-known brand of cane sugar is distributed widely throughout the area west of the Mississippi. Hawaii's sugar crop is harvested during some 10 months of each year and cane usually requires 22 to 24 months to mature. Sugar mills on the plantations generally operate for 24 hours a day during harvest. The refineries work on a year around basis. Among the recent innovations in sugar marketing, there has been a total conversion to bulk handling of raw sugar and molasses. This has involved development of special trucks, storage sheds and tanks, and loading and unloading facilities for the steamships that move raw sugar and molasses to the mainland. In the face of increasingly severe competition from beet sugar produced in the Western States the Hawaii sugar industry has conducted an aggressive merchandising program that has emphasized such things as brand advertising, improved packaging, better label design and tanker service for liquid sugar. Except for supplying the relatively small local market all of Hawaii's sugar is marketed on the United States mainland.

#### Pineapple

Pineapple is the second ranking agricultural commodity in the 50th State; in fact, Hawaii is now producing about two-thirds of the world supply of this

product in the processed form. In recent years, the value of the annual pack of processed pineapple products has been in the \$110 to \$125 million range. Like sugar, the Hawaiian pineapple industry is based on large plantation units (operated by seven major companies) with only a very minor part of the crops being grown by independent contract farmers. At this point the similarity stops because the marketing pattern of pineapple is markedly at variance with the pattern in sugar.

Pineapple matures in about 18 months and the initial harvest is usually followed by one or two ratoon crops from the single planting. The peak of harvest occurs in July and August but sporadic harvesting goes on throughout the year. After harvest, the pineapple is processed immediately and it is then in final form ready to be shipped to both domestic and foreign markets. A relatively small part of the crop is consumed locally in the fresh form and fresh pineapple is shipped in some volume (about 15 million pounds annually) to mainland markets. Although mainland sales of fresh Hawaiian pineapple have been increasing, this outlet is still a minor factor in the marketing of the crop.

Each of the seven large pineapple companies operates processing facilities in which both fruit and juice are canned. In several of these plants freezing is also used in processing the pineapple. The pineapple industry is highly integrated in that distribution as well as production and processing is controlled by each company. During the depression years of the 1930's the pineapple producers of Hawaii set up and operated a marketing cooperative, but this joint effort was discontinued at the beginning of World War II. At present each company has its own brands, some of which are nationally advertised, but a substantial part of the pack is sold under buyer's or distributor's labels. This practice is especially prevalent among the smaller and less widely known packers. Shipments of processed pineapple products from Hawaii to foreign markets have accounted for some 17

percent of the local output of canned fruit and perhaps about 5 percent of the juice produced in recent years.

The pineapple industry has been facing a constantly growing competitive threat both at home and abroad. In the domestic market, the competition has consisted mostly of canned deciduous fruits and frozen juices, particularly orange concentrate. Increased attention to promotion has been apparent of late in the pineapple industry and new blends of

pineapple and other juices have been developed recently. Frozen pineapple juice has also been placed on the market. Processed pineapple from Formosa, Malaya, Australia, the Philippines, and South Africa has been appearing in increasing quantity throughout Europe and other export areas to which Hawaii has been shipping its canned pineapple. Price-wise, this competition is very difficult to meet. The outlook is for continuing competitive pressure on this important Hawaii industry.

#### Livestock Products

Livestock products account for somewhat over 10 percent of the total agricultural income of Hawaii but among the diversified commodities these items are roughly three times as important as all crops (other than sugar and pineapple). In land utilization the livestock enterprises are users of large areas, but these extensive operations are generally limited to the beef cattle ranches. No Hawaii-produced livestock products other than hides, wool and honey are shipped out of the State; in fact, the Islands are on an import basis for all meats. The degree of self-sufficiency among the major livestock products is indicated by the following relationships of local production to total market supply in 1959:

	<u>Percent</u>
Beef and veal . . . . .	57
Pork . . . . .	49
Chicken meat . . . . .	35
Eggs. . . . .	79

#### Milk

Some 80 dairy farms in Hawaii produce fresh fluid milk. In 1960, these dairies produced almost 53 million quarts with a value of over \$10 million. The dairy industry is understandably concentrated on Oahu, and it is largely a "dry lot" operation in which relatively little land area is required. Among the mixed feeds used by Hawaii's dairymen, only a small quantity of pineapple bran and molasses originates in the Islands. Of late a limited volume of alfalfa has been

produced locally but the great bulk of the dairy feed, except green roughage, must be imported. Butter and cheese are not manufactured locally. Most ingredients of other dairy products such as ice cream, reconstituted milk and cottage cheese also are brought from the mainland.

Distribution of dairy products in Hawaii follows the conventional pattern found elsewhere in the United States. Direct branches or subsidiaries of three large mainland companies control most of the market on Oahu, but smaller local firms dominate the scene on the other Islands. Dairymen on Oahu are organized into informal bargaining groups and most dairy workers are unionized, but otherwise the milk market is essentially free of control except for the usual health and sanitation standards. Reconstituted milk processed in Honolulu has been supplied to the military services for some time, and it is now gaining some ground in the local retail trade. Just how far this product will develop as a competitive factor is not known, but a much more serious threat to Hawaii's dairymen is the prospect of a sterile concentrate becoming available in the near future.

#### Poultry Products

Egg production has been advancing at a remarkable rate in Hawaii with the 1960 output of 10.7 million dozen representing a threefold increase since 1950. At the same time the number of com-

mercial poultry farms has declined by almost 50 percent. Local eggs are graded, packed and distributed by a limited number of firms, including three cooperatives, as well as by some of the larger producers who have integrated production and marketing. Imported eggs (treated) are handled by a few wholesale receivers who grade, package, and store these eggs pending sale to retail stores.

The growth in poultry meat production is similar in that output is now some 2 1/2 times the 1950 volume. Chicken meat produced in the Islands is processed in volume by only two firms that perform slaughtering, packaging, and selling functions. Up to the present time, there is in Hawaii little of the vertical integration in poultry production and marketing that prevails in most parts of the United States. A serious competitive situation has developed between fresh poultry meat produced in the Islands, mostly from imported feed, and frozen poultry shipped from the mainland. Frozen poultry is sold by agents or brokers who represent mainland dealers.

Historically, there has for many years been a price premium for local poultry products over those shipped to Hawaii from outside points such as the Pacific Coast and Australia (eggs only). This price spread in favor of local products is narrowing constantly, especially on eggs where local producers are supplying 80 percent of the market. Further compression of the price premiums is in prospect if Hawaii poultrymen wish to take over a larger share of the local market. This will force the less efficient operators to adopt improved methods or face elimination in the competitive race. Basically, Hawaii is at a disadvantage because of the need for importation of practically all poultry feed.

#### Beef Cattle

More than 350 farms in Hawaii produce beef cattle in commercial quantities. These ranching operations vary greatly in size and range from fewer than 50 head of cattle to over 30,000 head; in fact, one ranch is among the larger units of its kind in the United States. Some of the cattle ranches are controlled by sugar plantations

Slaughter has been in excess of 40,000 head in recent years and the value of marketings has been averaging about \$9.0 to \$9.5 million annually. Honolulu is the principal outlet for these cattle and the major slaughter facilities are located there. Each island has its own slaughterhouses and there is little interisland movement of locally produced carcass beef. One sizeable meatpacking plant in Hawaii is cooperatively owned, but the other facilities are privately controlled although the major facility in Honolulu operates on a semicooperative basis. Live cattle shipped to Honolulu from neighboring islands are moved by oceangoing barges.

Until recently Hawaii's beef was not graded except on the basis of local brands. It was and remains the usual practice to label the local product as "Island Beef" at all levels of trade. Since 1959 a federally supervised grading program has been operating in Honolulu and U. S. Grades are appearing on a part of the local beef sold on Oahu. This move in the direction of Federal grades was precipitated by growing competition of U. S. Choice beef shipped in from the mainland, that was receiving more and more acceptance in the supermarkets. Most of the major meat processors in the United States have either sales representatives or branch houses in the 50th State. These branch units do a limited volume of processing but their major function is to serve as a clearing house for bulk shipments of frozen and processed meats of all types from the mainland. The other source of competition of some concern to the beef industry of Hawaii is the shipment of frozen beef to the Islands from Australia and New Zealand. Hawaii is a first stop of many vessels transporting beef from these countries and the tendency is to drop off substantial quantities of this beef at Honolulu. In another move to offset the competition of grain fed cattle from other areas, the local industry has initiated pen feeding operations in several locations. Some thought is also being given to economic aspects of slaughter at points nearer the ranches and shipment of carcasses to Honolulu.

### Hogs

Hog production in Hawaii has been reasonably stable over the last 10 years but the number of swine farms has declined by over 40 percent. About 11.6 million pounds of pork valued at \$3.7 million was marketed in 1960. Most Island pork is sold in the fresh form and it commands a premium over comparable cuts of the frozen product imported from the mainland. Strictly fresh cuts and carcasses are preferred by many local residents, particularly in preparing certain oriental dishes and for use at "luaus" or native feasts. Processed pork such as ham and bacon is almost completely of mainland origin. Hogs are produced and slaughtered on all islands. There is virtually no commercial shipment of hogs or pork among the Islands. From time to time live hogs have been shipped from the mainland to Hawaii, but this movement has declined of late. A few dealers, among them a producers' cooperative, dominate the distribution of fresh Island pork. Sausage products, using both pork and beef, are manufactured in Hawaii, but the bulk of the pork used by these plants is of mainland origin.

A major problem facing the pork producers of Oahu is the rapid expansion of the Honolulu metropolitan area which is forcing relocation of the hog farms. New locations, preferably on Oahu, are being

sought by these farmers and some thought is being given to development of increased production on neighboring islands. For some time the local producers have been able to maintain a premium price for fresh pork, but in so doing they have been supplying a constantly smaller part of the growing market. This situation may have serious implications for the future of the industry.

### Other Products

At one time Hawaii was exporting sizable quantities of honey and beeswax. This industry, however, has declined seriously since World War II, and there is little immediate prospect of a revival. Serious disease problems have been a major factor contributing to the difficulties of bee-keepers in the Islands. There is a scattering of miscellaneous livestock production, including sheep, turkeys, and rabbits, throughout the State, but these items are now of only very minor importance. A comparatively recent enterprise that has promise of further development is the growing of dairy heifers for herd replacement. These dairy heifers are sold directly to the Island dairy farmers, who have been bringing some 2,000 head of young stock from the mainland each year. Fish is an important food item in Hawaii. Some fish farming is practiced, particularly in producing the mullet, which finds ready sale in the local fish markets.

### Diversified Crops

Aside from sugar, pineapple and livestock products, the major sources of agricultural income in Hawaii, one other important segment consists of diversified crops that include vegetables, fruits, coffee, macadamia nuts, taro and rice. This group of commodities had a value of over \$10.5 million in 1960 and thus represented some 4 percent of the State's gross income from all agriculture. Acreage devoted to diversified crops totaled almost 16,000 acres, about 5 percent of the lands devoted to all cultivated crops. It is in this segment of Hawaii's agriculture that the concentration of small farm units is found.

### Coffee

Coffee is the most important single crop in the diversified group. It occupies about 40 percent of the land used for such crops, and in 1960 it represented some 30 percent of the value of diversified crops. Approximately 1,000 farmers produced coffee valued at \$3.5 million from units averaging 6 acres in size.

The relatively low return for coffee in relation to area utilized for the crop is mostly a direct result of depressed coffee prices on the world market. Hawaii's

output of "Kona" coffee is so small (less than 1 percent) in relation to world supply that it is completely dependent upon price movements over which it exerts no influence. It is estimated that 85 percent of Hawaii's coffee is shipped to mainland and foreign markets where it is used as a blend with other types of coffee. The local Kona coffee sold in the Islands is not yet offered as a blend and it does not compete well with the blends imported from the mainland.

The bulk of the coffee produced in Hawaii is processed from the cherry to the parchment stage by the farmers themselves. Conversion from parchment to green (unroasted) coffee is handled by millers who operate their facilities seasonally. Perhaps 35 to 40 percent of the Hawaii coffee crop is now being milled in facilities operated by cooperative associations. Both the cooperatives and the private millers utilize the services of brokers in the domestic and foreign markets to which Kona coffee is shipped. In the United States the major outlets are San Francisco and Los Angeles, but a substantial quantity of green coffee is exported to the Philippines and to Europe.

#### Vegetable and Melons

Vegetables and melons produced in Hawaii are almost exclusively for local consumption. Only small quantities of specialty items such as fresh ginger and lotus root are exported to the mainland. Except for oriental-style pickle products, there is no vegetable processing in Hawaii. The 50th State grows slightly over half of the truck crops that it consumes. Within the list of commodities the relationship of local production to imports ranges from self sufficiency in snap beans and cucumbers to practically total dependency on mainland sources for potatoes and carrots.

Most vegetables and melons can be grown in Hawaii, but it has proved more advantageous to import some products than to produce them locally. A part of the problem lies in the fact that vegetable growers in Hawaii operate very small

units and the marketing system is not geared to the handling of larger quantities; furthermore, the entire market consists of fewer people than live in one moderate-sized city on the mainland. Hawaii's vegetable growers are quite aware of the dangers involved in oversupplying a "pocket" market such as Honolulu. This is another reason why fresh produce continues to be imported from the Pacific Coast. In regard to size of unit it is significant that although the number of truck farmers has declined almost 50 percent since 1950, the average farm in this group still contains less than 5 acres of cropland. Multiple cropping is the usual practice, however, with the result that the land is used intensively and the output per acre is relatively high.

#### Fruits

The situation with respect to fruits in Hawaii is somewhat different than for vegetables in that production is concentrated in only a few commercial crops. Papayas and bananas alone make up almost 90 percent of the value of fruit crops, with avocados, oranges and tangerines accounting for most of the remainder. There are also scattered plantings of mango, lichi, breadfruit, passion fruit, acerola cherry and other fruits, but these items have not yet assumed sufficient importance to be reported as separate commercial crops.

Among the major fruits, Hawaii is self sufficient only in papayas, bananas and avocados, and on an overall basis the State produces about 45 percent of the fruit reaching local markets. Imports of citrus and deciduous fruits are particularly heavy although at one time the Islands actually exported citrus and bananas to California. Except for fresh pineapples, papayas are the only fresh fruit that is shipped from Hawaii at the present time. Competition from other areas and difficulty in meeting plant quarantine regulations tend to discourage further development of export trade in exotic type fruits. Fruit growing enterprises number almost 800, but these units are generally even smaller than the vegetable farms. They

average less than 3 acres per unit although there are a number of large orchards of papayas and bananas and a few sizable plantings of passion fruit, acerola cherry, and mango.

### Produce Marketing

Limited scale of operations is not restricted to the growers of fruits and vegetables in Hawaii; it is also very characteristic of the entire marketing and service structure through which the local produce moves to the retail level. It is estimated that perhaps one-third of the produce growers are members of the several cooperatives that have been set up in the production areas. These marketing associations handle some 15 to 20 percent of the output of fresh produce. At the wholesale level more than 50 dealers operate in the Honolulu market. In large part the local produce is handled on commission and even the cooperatives route much of their produce through the wholesale dealers. In contrast to the situation in many mainland markets, the Honolulu wholesalers continue to provide extensive services in the form of regrading and repacking the produce, frequent delivery, and liberal credit. A limited number of growers are delivering produce directly to supermarkets, but this practice is not at all prevalent as yet. By way of contrast, the supermarkets are receiving direct shipments of produce from the mainland with the result that local wholesalers must depend more and more on Hawaii produce as a source of income. The wholesale produce market in Honolulu includes two distinct and separate locations, both of which are poorly situated so far as accessibility and space are concerned. To a greater degree than at any other point in Hawaii's market structure, it is probable that the handling of fresh produce will undergo substantial changes in its physical and functional pattern.

### Other Products

Taro, macadamia nuts, and rice are among the other crops of commercial importance in the Islands. It is from the

taro root that poi is manufactured through a fairly simple process of cooking and straining. Poi was for many years the staple food of the native Hawaiians and it is still used extensively by some of the State's residents. The usual taro enterprise is about 2 1/2 acres in size and in recent years both acreage and number of units have been declining at a moderate rate. Substantially all poi is consumed locally where it is sold by many food stores and finds some outlet through "luaus" and use by tourists. Growers sell the taro root to a limited number of poi millers who in turn distribute the finished product, usually in plastic bags, to retail stores and other users.

Macadamia nut trees require 8 years to come into bearing. The macadamia has been produced in Hawaii for many years, but it is only of late that the crop has been gaining importance as a commercial activity. There are now over 200 macadamia nut plantings in the State. Although they average about 16 acres in size, the industry is dominated by a few large orchards where production and processing are integrated. Only 60 percent of the planted acreage was in bearing during the 1960 season. Macadamias are generally sold in the shell to the limited number of dealers who are equipped to shell, process and package the nuts. In some cases the processors are also growers and this leads to a closely integrated production and marketing situation. The macadamia nut has generally been considered a gourmet item on the mainland and in Hawaii it has been sold in fair volume to tourists and as a gift for shipment to points outside. Now that production is increasing constantly a real interest is developing in the broadening of the outlets for this product. Research conducted by the Hawaii Agricultural Experiment Station indicates that a mainland market for macadamias exists, providing the product is promoted properly and the retail price is reduced to a more realistic level.

Rice was at one time a principal farm crop in Hawaii. For many years, however, it has been a declining activity and now there are fewer than 20 growers with only

68 acres in rice. The few growers on Kauai who are continuing in this enterprise are producing only mochi rice, which is used for special purposes. The ordinary table rice that is used in large quantities by so many Island residents is brought from the mainland. Small, uneconomic production units in Hawaii cannot compete on even terms with the large, mechanized rice farms of California and other areas of the United States.

Hawaii ships several processed specialty products to the mainland. All these

products are also consumed in varying amounts within the State. Among these commodities are nectars and puree of guava, papaya and passion fruit, pickled vegetables, jams and jellies and coconut products. Both canning and freezing are employed in manufacturing these processed foods. With aggressive marketing it is considered possible to develop a substantial export volume in these products, particularly passion fruit and guava juices. Acerola cherry is another commodity that offers some possibilities for processing and export.

### Transportation

Composed as it is of several noncontiguous land areas separated by virtually open sea and being located at a distance of over 2,000 miles from the United States mainland, it is most understandable that transportation is a major factor in the entire economic life of the State. This observation applies particularly to the marketing of farm products whether they are consumed locally, mostly in the Honolulu metropolitan area, or shipped from the 50th State to mainland or foreign markets.

From Hawaii to the mainland regular service is available by both air and water. For the great bulk of agricultural commodities, the steamship is used because air cargo rates on most of these products are prohibitive. The major exception is floral products that have a high value in relation to their weight. A few fresh papayas are being shipped by air on an experimental scale. For the less perishable export items, steamship service is adequate and the rates have been considered reasonable. Substantially all mainland commodities of agricultural origin reaching the Islands are shipped to the several ports of Hawaii by steamship. Honolulu, of course, is the principal port of destination for these commodities.

Interisland freight moves by barge and by air, with the bulk of farm products destined for Honolulu from the neighboring

islands being shipped by water. Floral products and a limited volume of fresh produce are moved among the islands by air freight. Lack of fast, economical transportation service among the islands tends to retard development of increased production of commodities for the Honolulu market by farmers located on islands other than Oahu. The State government and private interests as well are devoting considerable effort to development of plans that might lead to a solution of this particular transportation problem.

The highway system of each individual island in the State is generally adequate to provide ready access to the local markets for farmers located on the island. In general, there is no movement of Hawaii-produced agricultural products among the Islands except for the heavy flow from all producing areas to the Honolulu market. Proximity to market is advantageous and this factor is one of the principal reasons for continuing heavy production on Oahu despite the growing pressures of urban development. Plantations have private road systems that are used in hauling sugarcane to the mills and in harvesting pineapples. The highways of the State are important to the sugar and pineapple industries because they facilitate the movement of sugar and pineapple products to and from the processing plants as these commodities enter into domestic and foreign trade channels.

Retail and Military Outlets for Food Products

Some distinct changes have been occurring at the retail level in Hawaii. Until the close of World War II the food trade in the Islands was completely dominated by small independent merchants. Retail stores were usually a family operation and they normally purchased their supplies through the conventional channels; i.e., local wholesalers, brokers and sales representatives. Since 1946, however, the supermarket has appeared on the local scene and the impact of these large scale units has been impressive, particularly in and around Honolulu. From 1948 to 1958 the number of retail food stores in Honolulu declined by one-third but sales per store more than doubled. With the advent of the supermarkets there was a marked increase in direct buying from the mainland, and several of the larger wholesale food firms have been liquidated. As direct buying in larger quantities moves over into the area of locally-produced food-stuffs, there will undoubtedly be some drastic changes at several points in the Island marketing system; e.g., it is doubtful whether local fruit and vegetables will continue to be sold by over 50 Honolulu wholesalers. Already certain of the large food stores have an integrated interest in the suppliers of some local products. The trends so apparent in Hawaii's retail

food trade seem certain to continue and will lead to additional changes in the market structure of several commodities.

Sales of local products to military agencies located in Hawaii have developed into an important source of business for Hawaii's farmers. The procurement program of the Armed Forces has been tailored in part to fit the local situation in that some commodities are purchased through preplanting contracts, while others are bought on the open market following announcement of quantities desired. For the most part these purchases have been made through dealers although advance contracts may be entered into by producers or associations of producers. The military procurement program is particularly important in fresh fruits and vegetables and in dairy products. Also, some meats and a limited quantity of eggs are purchased locally for the mess and commissary operations. This outlet for Island farm products has not yet been exploited to the maximum by Hawaii's farmers; in fact, performance on contracts has been very disappointing to the military and civilian personnel who have devoted considerable effort to development of this market.

## RECENT RAILROAD MERGER ACTIVITY 1/

Many of the nation's railroads are striving to consolidate their operations. Efforts to merge, intensified since 1957, have been spurred by a continued decline in the rail share of total traffic and by decreases in revenues. Net operating income of railroads has declined in recent years. Through mergers railroads hope to achieve substantial operating economies. These economies, they claim, would permit them to provide better service to shippers. Some mergers may improve service by eliminating time-consuming switching at interchange points. Some shippers, however, may be adversely affected by the reduction or elimination of services where parallel routes are merged. Rate reductions also are a possible result of mergers, but these may be prevented by failure to achieve economies and protests of competing carriers.

In the past, regulatory bodies have sought to preserve competition between rail lines as a means of preventing discriminatory pricing practices. Merger proponents, however, contend that competition between different forms of transportation now provides sufficient competition to prevent injurious monopolistic practices. They point to economies attainable by eliminating duplicate facilities and services.

Unless the Interstate Commerce Commission changes its present attitude, extensive consolidation of railroads seems likely.

From 1957 to June 1961, the Interstate Commerce Commission approved 7 mergers involving 17 rail lines. As of April 1961, another 11 proposed mergers involving 30 lines were awaiting approval by either the ICC or stockholders of the companies involved, being prepared for presentation before the ICC, or undergoing preliminary study before presentation to stockholders. This degree of merger activity on the part of the railroads has not been evident since shortly after 1900.

Why this resurging interest in mergers and consolidations? What is the attitude

of the national regulatory and legislative bodies toward this trend? How will mergers affect the national transportation scene? Of what importance are mergers to the nation's agricultural economy? These questions are only a few of the many that come to the fore.

In this discussion the terms consolidation and merger are used interchangeably; each is used to denote any unification of properties under single corporate management.

1/ Prepared by Ralph O. Foster, Transportation Economist, Marketing Economics Division, Economic Research Service.

### Mergers and Agriculture

Railroads are an integral part of the agricultural transportation pattern. In 1959, railroads carried 1.2 billion tons of freight, about 13 percent of which was classified as products of agriculture. Much of the remaining tonnage was of indirect interest to the farmer, either as farm supplies or as materials used in producing consumer goods for the farmer.

Although their importance has declined in recent years, railroads remain the primary mover of many agricultural products. A recent study of grain transportation from midwestern country elevators showed that railroads hauled 68 percent of the grain moving from these elevators in 1958.

Available records indicate that railroads carried 70 percent of the fresh fruits and vegetables shipped by rail and truck from California and Arizona in 1959. The percentage moving by rail from these States to population centers east of the Mississippi River is even higher, more than 90 percent to some markets.

Any improvements in service resulting from mergers, with no accompanying increase in rates, would be welcomed by

many shippers of agricultural products. Shippers of perishable products are especially interested in fast, dependable service. Any improvement, regardless of the enabling factors, is likely to be looked upon with favor.

In the past, shippers of bulk agricultural commodities such as grain were not so much concerned with speed of delivery; they often utilized such privileges as diversion and reconsignment to their benefit. Today grain shippers are more interested in rapid delivery, which insures quicker financial settlement and more rapid inventory turnover.

Thus, directly or indirectly, the nation's farmers have a valid interest in merger proceedings. Railroads serving the midwestern "breadbasket" have been among the most active proponents of consolidation. Mergers accomplished since 1957, along with those proposals presently before the ICC or being prepared for presentation, affect virtually every section of the nation. This means that at some stage of the journey from producer to ultimate consumer farm products are likely to move over trackage affected by merger proceedings.

### Conditions Leading to Present Merger Efforts

In its annual report for the fiscal year 1958 the Interstate Commerce Commission noted that economic conditions in the railroad industry had given impetus to plans for consolidation and merger. 2/

In 1958 the operating revenues for Class I line-haul railroads totaled \$9.6 billion, about 9 percent less than the revenues for 1957 and 5 percent below the average operating revenues for the period 1954-58. Railroad operating expenses were slightly lower in 1958 than in 1957, but not pro-

portionately so. Operating expenses in 1958 equalled 78.87 percent of operating revenues, the highest ratio since 1949.

Class I and II companies reported a net railroad operating income of \$772.9 million in 1958. This income was 17 percent less than for 1957 and 20 percent under the average net operating income for the 5 years ending in 1958. Railroad income from other sources rose slightly above the previous year's total, but increased capital investment, fixed charges and other deductions brought the net in-

come for Class I and II companies down to \$630 million, about 18 percent less than the net income for 1957 and 21 percent under the average net income for the years 1954-58.

By 1960, the financial plight of the railroads was even more pronounced, particularly for those in the eastern United States. The continuing passenger service deficit poses a serious financial problem for these railroads; many have a large volume of commuter traffic. Net operating income for Class I railroads was \$584 million in 1960, down 22 percent from 1959 and 29 percent below the average for the 5 years 1956-60. For each of the years 1957-59 the ratio of debt to capital for intercity railroads and their lesser subsidiaries was 54 percent or more, higher than for any year since 1941.

In order to improve their position the railroads needed to increase their revenue to meet rising costs or decrease their costs to gain more net income. The increased competition from other modes of transportation made it unlikely that the railroads could raise their revenues by increasing rates. Their decreased revenues were traceable, in part, to their failure to share proportionately in the overall growth of the transportation industry. Each year competitive transport modes were hauling a greater share of the total volume of goods moved. Any increase in rates would only accentuate this trend. The railroads turned to mergers as a means of achieving operating economies and reducing overhead expenses, thus improving their economic position.

#### Advantages and Disadvantages--Railroads and Public

Rail lines do not enter into merger proceedings unless they are confident they will benefit. Thus, careful studies of proposed mergers are made before any definite action is taken. (Indeed, one road conducted a study to see if a merger study should be made.)

There are two general types of consolidation. Parallel mergers join lines

During the decade ending in 1958, the national volume of freight moving in intercity traffic increased 38 percent, from a volume of 882.9 billion ton-miles in 1949 to 1.2 trillion ton-miles in 1958. For the same period, the railroads intercity ton-mileage rose only 5 percent. Their share of the national total fell from about 60 percent in 1949 to 46 percent in 1958. Trucks hauled 21 percent of the traffic in 1958, compared with 11 percent in 1949. The volume hauled by trucks in 1958 was 163 percent greater than in 1949.

Differentials in rate of growth have become even more pronounced since 1958. The nation's interstate highway system has undergone extensive improvement, thus offering faster and more direct highway routing. Older water routes have been improved and new water routes have been opened.

An ICC study, "Fluctuations in Railroad Freight Traffic Compared with Production," shows that rail tonnage at the end of the 1947-57 decade was only 74.3 percent of the "potential." Potential tonnage is defined as the volume which would have been carried if the railroads had maintained their relative 1947 position as carriers of freight originating from production in this country. In 1957 they moved 28.5 percent of the total tonnage produced, compared with 42.5 percent in 1947. The report indicated that in 1957 the railroads hauled 75.2 percent of their potential traffic in products of agriculture.

serving basically the same territories, often with common terminal and junction points. End-to-end mergers join roads with few common operating points other than at or near their extremities.

Of the two types, parallel consolidation offers more immediate advantages to the carriers. This type of merger affords a choice of routes and terminal facilities,

of which the most efficient may be retained. Duplicate services, lines, and facilities may be discontinued or de-emphasized. End-to-end mergers offer less opportunity for savings of this nature; any savings effected are most likely to be derived from reduction of personnel through economies of scale. Other savings may be achieved by more efficient and economical use of motive power and equipment over the longer through routings made possible by consolidations.

In either type of consolidation, advantages may accrue from the economy of large-scale operation. Management, supervisory, maintenance, and sales forces may be consolidated and eventually reduced. Repair and maintenance facilities may be centralized. Traffic and accounting activities may be combined.

In a report to a Senate Transportation Study Group, railroad interests pointed out the following advantages as likely to benefit the public: "(1) Shorter and more direct railroad routes; (2) simplified and more efficient terminal operations; (3) faster and more dependable service; (4) greater availability and utilization of motive power and freight cars; and (5) a sound railroad industry which will perform its part in preserving a national transportation system . . ." <sup>3/</sup> In order for the public to receive these advantages, the railroads will have to attain corresponding benefits from any merger.

Disadvantages to be evaluated in any such merger proposal include such items as: (a) Actual expense of accomplishing the merger; (b) cost of labor protection under the terms of Section 5(2) of the Interstate Commerce Act; and (c) opposition from labor groups, individuals, industries, or communities that believe they will suffer because of the merger.

A primary obstacle to mergers is the uncertainty of obtaining the benefits pro-pounded by merger advocates. Initial expenses are a certainty, whereas the expected savings are problematical. If a weak line joins a strong line the cost of improving facilities and service may absorb most or all of the potential economies.

Other railroads often oppose merger proposals, largely to prevent the loss of interchange traffic but also to limit the flexibility and strength of their competition. Opposing roads may either try to join the merger or limit it if they cannot prevent it.

Advocates of consolidation cite eventual rate reduction as a possible benefit to shippers. However, competing carriers often object to and may prevent these reductions. Some 5,900 protests were filed against 5,600 rate adjustments proposed during the fiscal year 1959 by six classes of carriers responsible to the ICC. Of the adjustments proposed, 5,331 represented reductions and of the protests, over 99 percent came from carriers--type against type and within type, carrier against carrier. <sup>4/</sup> Only two-thirds of the 1,174 rail rate adjustments proposed in 1959 became effective. For the fiscal years 1956-60 more than 4,000 rail rate adjustments were proposed, of which less than 65 percent were put into effect. Thus, one out of every three proposed reductions failed to become effective. In an instance where a merger involved directly competitive lines the combination could conceivably eliminate some of these protests; however, other lines serving the same area might be even more prone to protest any reduction.

As previously mentioned, railroad interests have cited merger benefits likely

<sup>3/</sup> Association of American Railroads, Consolidation and Merger in the Transportation Industry, report to the Transportation Study Group under S. Res. 29., Feb. 1960.

<sup>4/</sup> Boyd, Richard M., The Users' Need for Effective Transportation, Speech before National Transport Institute, Chicago, Illinois, Jan. 18, 1961.

to accrue to the public. Along with these specifics, they have indicated that the shipping public could benefit from any savings realized by component lines of a merger. Such savings would enable greater capital expenditures for better service, and these expenditures would be made necessary by the intense competition of other forms of transportation.

Most shippers stand to gain more from end-to-end consolidation than from merger of parallel and competitive carriers. Longer through routings would eliminate the time-consuming switching at interchange points and give the shipper faster, more dependable service.

Labor-force reduction, relocation of some maintenance and terminal facilities, and elimination of other maintenance and terminal facilities are byproducts of a successful merger which will necessarily harm segments of the general public. It is likely that traffic would be concentrated along the most efficient and economical routes, resulting in better, more economical service. However, this could lead to poorer service being offered along the more inefficient routes. Problems of this nature must be weighed by the ICC in their decisions as to what best protects the interest of the public.

#### Historical Background

The railroad consolidation movement began almost immediately after the formation of the first railroad companies but was most active during the period after the Civil War and prior to the economic depression of 1893.

Legislative bodies and the general public felt that such consolidations could lead only to eventual elimination of competition, the protector of the public from ruinous monopoly. The Interstate Commerce Act of 1887 incorporated these views. Section 5, apparently drawn up to help preserve competition, prohibited pooling agreements between rail carriers. This slowed the merger pace. The application of the Sherman Anti-trust Act to railroad combinations virtually halted consolidation after the early 1900's. 5/

In 1920, the legislative attitude toward consolidation was seemingly reversed. The Transportation Act of 1920 amended the ICC Act of 1887 and instructed the Commission to "...prepare and adopt a plan for the consolidation of the railway properties of the continental United States into a limited number of systems. . .com-

petition shall be preserved as fully as possible and wherever practicable the existing routes and channels of trade and commerce shall be maintained. . ." 6/

These systems were to be established so that, insofar as possible, costs, property values, and rates of return on each system would be equitable.

In 1929 the Commission published the "Complete Plan of Consolidation" (159 I.C.C 522). Under this plan any consolidation effected had to: (1) Conform to the system outlined in the plan, and (2) be in the public interest. Rail lines could not be forced to consolidate, but any proposed consolidation had to adhere to the provisions of the Transportation Act of 1920.

The Commission's ruling that any true consolidation could not be authorized until after publication of its complete plan limited the number of mergers effected during the 1920's and 30's. 7/ Only four actual mergers or consolidations involving 17 railroads were accomplished under the Transportation Act of 1920. 8/

5/ U. S. v. Trans.-Missouri Freight Association, 166 U. S. 290 (1897) and 171 U. S. 505 (1898); Northern Securities Case, 193 U. S. 197 (1904).

6/ Interstate Commerce Act, Section 5(4). (Feb. 28, 1920, c. 91, sec. 407, 41 Stat. 481.)

7/ Control of the Big Four by New York Central, 72 I.C.C. 96 (1922).

8/ Leonard, W. N., Railroad Consolidation Under the Transportation Act of 1920, (New York, Columbia University Press, 1946), chapter VIII.

The Emergency Transportation Act of 1933 (48 Stat. 211) placed significant emphasis upon consolidation. While the Act of 1920 was designed mainly to equalize the rate of return for all systems and preserve the weak lines, the Emergency Act sought to reduce costs and increase the efficiency of service. A Federal Coordinator of Transportation was appointed and granted authority to investigate and recommend action to prevent wasteful duplication in service.<sup>9/</sup> The Emergency Act amended the Interstate Commerce Act to the effect that any form of combination was held to be legal when approved by the Commission, such approval to be premised on the combination agreeing with the plan for consolidation and promoting the public interest.<sup>10/</sup>

The Transportation Act of 1940 (54 Stat. 898) was enacted as a result of hearings instituted by Congress to examine the position of other transportation media in the national transportation scene. This Act relieved the Commission of its obligation to formulate and effect a plan of consolidation and established the statutory provisions which now control merger and consolidation. For the first time, a national transportation policy was stated and incorporated as part of the Interstate Commerce Act.<sup>11/</sup> The aim, "to promote safe, adequate, economical, and efficient service and foster sound economic conditions in transportation . . ." has proved an important factor in later merger and consolidation developments.

#### Present Statutory Provisions

As amended by the Transportation Act of 1940, the Interstate Commerce Act leaves initiation of merger proceedings up to the rail lines concerned. The Interstate Commerce Commission has authority to approve or disapprove any proposal, in accordance with the criteria outlined below after hearing all interested parties, including protestants.

Part I, Section 5 of the Interstate Commerce Act regulates any joining together of railroads in any form of pooling arrangement; consolidation or merger of properties into one corporation; joint purchase, lease, or contract agreement, or acquisition of control through stock ownership. Section 5(c) states: "In passing upon any proposed transaction... the Commission shall give weight to the following considerations, among others (1) the effect of the proposed transaction upon

adequate transportation service to the public; (2) the effect upon the public interest of the inclusion of, or failure to include, other railroads in the territory involved in the proposed transaction; (3) the total fixed charges resulting from the proposed transaction; and (4) the interest of the carrier employees affected."

Section 5 includes two other provisions which often have direct bearing on whether or not a merger proposal is approved. Section 5(2) grants the Commission authority ". . . to require upon equitable terms the inclusion of another railroad or other railroads in the territory involved, upon petition by such railroad or railroads requesting such inclusion and upon a finding that such inclusion is consistent with the public interest." Section 5(2) (c) further provides: "No transaction shall be approved which will result in an increase

<sup>9/</sup> The Coordinator's recommendations might include enforced consolidations. However, he could not issue any orders which would reduce the number of employees in service, or adversely affect employees' compensation (48 Stat. 212, 48 Stat. 214, and 48 Stat. 216).

<sup>10/</sup> The Emergency Transportation Act of June 16, 1933, c. 91, Title II, secs. 201 and 202.

<sup>11/</sup> 54 Stat. 899 (Sept. 18, 1940).

of total fixed charges, except on a specific finding by the Commission that such increase would not be contrary to the public interest."

It should be noted that the public interest is a vital factor to be considered in any ICC decision regarding consolidation. The

protection of the public has been a part of railroad legislation since the Granger Laws were enacted. Changes in legislative policy over the years have paralleled changes in legislative and regulatory viewpoints as to what best protects the public interest.

### Regulatory Attitude and Future Prospects

In the mid-1950's, legislative and regulatory bodies became more conscious of the changed competitive situation in transportation. The Secretary of Commerce described the situation in 1954 thus: "... the monopoly element which once characterized our public transportation and which prompted much of our present transportation policy has been replaced for all practical purposes by a highly competitive system." 12/ In 1955, a presidential advisory committee said in its report: "The net result is a competitive system of transportation that . . . has eliminated the monopoly element which characterized this segment of our economy some thirty years ago." 13/

The Commission indicated a changing attitude in its report on a merger case in 1957. 14/ The report stated: "With the construction of new highways, referred to by some as 'expressways' and others as 'freightways', the competition of the railroads from motor carriers will be enhanced. Without doubt, the possibility of faster truckline schedules will disadvantageously affect the ability of the railroads to compete with them, particularly with respect to the more lucrative traffic.

"The foregoing reflects how imperative it is for the railroads to do everything in

their power to enhance their competitive situation through all possible economies and efficient operations. The proposed merger is designed to accomplish that result."

Later in the same report, the Commission, noting that the effect of the transaction upon competition was an important aspect to be considered and recognizing that the proposed merger would reduce competition throughout the affected area, stated that this fact did not preclude its approval of the merger. The report designated the Commission's task to be "to estimate the scope and appraise the effects of the curtailment of competition which will result . . . and consider them along with the advantages of improved service, safer operation, lower costs, etc., to determine whether the consolidation will assist in effectuating the overall transportation policy."

It is possible that the recognition by railroad management of this change of attitude by regulatory bodies contributed almost as much to the intensified merger activity since 1957 as did the economic status of the railroads.

From recent consolidation hearings and decisions, it may be seen that the ICC has come to think more and more along the

12/ The Honorable Sinclair Weeks, Statement before a Subcommittee of the Committee on Interstate and Foreign Commerce of the House of Representatives, Sept. 19, 1955.

13/ Revision of Federal Transportation Policy, A report to the President prepared by the Presidential Advisory Committee on Transport Policy and Organization, April 1955.

14/ Louisville and Nashville Merger case, 295 I.C.C. 457 (1957) p. 468.

lines first expressed in the Louisville and Nashville Merger case of 1957. An ICC decision approving a 1959 consolidation of eastern railroads indicates that public interest is no longer considered to be as adversely affected by reduction of competition among railroads as before, since other forms of transport are likely to provide strong competition. 15/

For western railroads, however, barge competition is not present and their typical movement is of such length that they have an inherent advantage over motor carriers. Thus, they are affected less by motor carrier competition than eastern railroads.

In pointing out that the merger would result in a larger, stronger company, better able to meet the challenges faced by the railroad industry, the decision stated, "... the position of the railroad has deteriorated steadily in recent years with the accelerating transportation revolution."

It is of particular interest to note that this decision is a reversal of the Commission's decision on an application for combined operation of the same railroads 34 years previously. In 1926 the Commission refused the application on the grounds that competition would be lessened and an injurious monopolistic situation would be created. 16/

In each of three mergers approved late in 1960, 17/ the Commission's statements were strikingly similar in one respect: In each instance it was noted that the merger in question would provide improved service to shippers served by each of the railroads involved. This would seem to indicate that the "public interest" is now considered to be best provided for by improved service and other tangible benefits, rather than by preservation of competition.

Competition is no longer the sole criterion for evaluating consolidation. Current national and industry needs call for maximum efficiency in the performance of the transportation function. Recommendations have called for elimination, in the long run, of redundant capacity in any form of transport. The need for more rapid progress in the economic upgrading of the railroad system has been cited. 18/

Today, a primary criterion for evaluation of any merger proposal with respect to the public interest appears to be the contribution it can make toward concentration of capital investment upon such routes to accomplish major improvements and subsequent elimination of unnecessary trackage and facilities.

More recently, the "Doyle Report" 19/ has called for major revisions in the present national transportation policy toward consolidation. The removal of

15/ ICC Fin. No. 20599, Norfolk and Western Railway Co.--Merger, Etc.--Virginian Railway Co.

16/ Control of Virginian Railway, 177 ICC 67.

17/ ICC Fin. No. 20707, Erie Railroad Co.--Merger, Etc.--Delaware, Lackawanna, and Western Railroad; ICC Fin. No. 2115, Chicago, and Northwestern Railway Co.,--Purchase Etc.--Minneapolis and St. Louis Railway Co.; ICC Fin. No. 21108, Duluth South Shore and Atlantic Railroad Co.--Merger--Minneapolis, St. Paul and Sault Ste. Marie Railroad Co. and Wisconsin Central Railroad Co., Issuance of Securities, Etc.

18/ Williams, Ernest W. and Bluestone, David W., Rationale of Federal Transportation Policy. U. S. Department of Commerce, Wash., D. C., April 1960, pp. 3 and 69.

19/ U. S. Congress, National Transportation Policy, Preliminary draft of a report prepared for the Committee on Interstate and Foreign Commerce, 87th Congress, 1st Session, January 3, 1961.

legislative obstacles, so far as possible, is cited as the first consideration of national policy: "Such concepts as preserving competition as far as possible or avoiding a substantial lessening of competition and the preservation of existing trade routes must be abandoned in the light of intensive competition of other modes and a national need for revamping the traffic flow along the direct main routes." The report further states: "Rail monopoly should result in areas where rail traffic will not support intramodal competition."

Since early 1961, more national attention has been focused on the merger issue than at any time since the revocation of the Transportation Act of 1920. Congressional leaders have pointed with alarm to the possibility that areas of the nation will be left with inadequate rail service. Labor groups are speaking out more strongly against the current surge of consolidations, citing that 200,000 railroad jobs will be lost if mergers now pending are approved by the Commission. Railroads with no present merger prospects are demanding to be included.

Resolutions to slow down the merger trend have been introduced in both houses of Congress. The resolution pending in the House of Representatives would suspend the authority of the ICC to approve any merger for 20 months. During this time the ICC would study which railroads should be merged.

The Senate resolution does not put any restriction on merger approvals, but it does urge the Commission to act with caution and deliberation on merger approvals.

In an effort to answer this tide of criticisms, real and implied, the ICC

is beginning a study to gauge the impact of mergers on the nation's economy, on the shipping public and on the railroads economic structure. The results of this study may well plot the future course of the railroads.

The Department of Justice has declared an interest in all merger proceeding which would result in elimination of rail competition. It is investigating to determine if such consolidations would lead to a monopolistic situation harmful to the public interest. As previously indicated, the ICC has stated its belief that competition from other transport modes limits the inherent dangers of a one-line monopoly of rail transportation.

It appears that the merger movement is just now getting fully underway. In the coming years, there promises to be an extensive realignment of railroad organization and management as we know it today. Unless the studies now underway and the protests directed to the ICC cause the Commission to change its present position, there will be fewer railroad systems in the future.

Mergers are not the sole answer to the many problems and questions facing the railroad industry. At least two broad categories of problems will remain: (1) The rate of adoption of technological innovations in the future will affect the ability of railroads to compete with trucks and water carriers. Mergers may or may not alter the institutional framework for adopting innovations. (2) The trend toward regional self sufficiency within the United States in production and distribution of some products and goods will tend to reduce the average length of freight haul and railroads have their greatest comparative advantage in long-haul freight traffic.

## MEATPACKER COSTS FOR SLAUGHTERING, CUTTING, AND MARKETING FRESH PORK 1/

The Economic Research Service is in the midst of a study of packers' efficiency and expenses in fresh (uncured) pork operations. This study is part of the program conducted by the ERS to suggest ways to improve marketing service and reduce costs. This article is a preliminary report of a first phase of the analysis. In this study a large group of independent meat packers with plants located mostly in the Northeast, North Central and South, voluntarily maintained detailed accounting records and submitted monthly reports on their fresh pork operations. Items reported included costs in detail, man-hours, wage rates and fringe benefits, volume (both weights and numbers), value and yields. Most of the 22 firms that reported for the full year were located in Mid-Atlantic and East North Central States. Some large-volume plants were included, but none of the large national packers were among the reporting group. Volume of pork cut per plant ranged from 2 million pounds to 142 million pounds annually.

This preliminary analysis was limited to fresh pork operations. Earnings from

byproducts such as lard, tankage, and fertilizer depend on market factors not closely related to pork costs and operations. The processing operations, such as curing and smoking bacon and ham, sausage-making, etc., vary a great deal among meat packers. Packers' costs are, of course, higher for the products requiring additional processing and packaging. Variations among firms and among brands in curing methods, ingredients, equipment and labor used, and packaging or other services added, affect packer costs for these cured and smoked or processed pork products.

Although a packer incurs larger total cost in preparing and marketing ham and bacon as compared with fresh loins, slaughtering and dressing operations are the same for each of these products. And packer costs for slaughtering and dressing of hogs into fresh pork cuts stand out sharply. Some firms buy fresh pork cuts in the wholesale market and cure, smoke, and process more than they slaughter; some sell fresh pork cuts to other packers. The hog kill and pork cut operations are the most comparable operations among different packers.

### Packer Costs

Total cost of the 22 packers for fresh pork operations, \$25.96 per 100 pounds cut (or 26 cents per pound) 2/ on the average, consisted of about \$22.72 for materials, \$1.93 for labor and equipment expenses in slaughtering and cutting, and \$1.30 for "marketing" expenses 3/ (table 11). Materials cost consisted of live hogs purchased for

slaughter and carcasses purchased for cutting. Most firms also reported small purchases of fresh pork cuts in most months of the year, mainly to supply the full range of weights desired by customers on hams, picnics or loins rather than for merchandising. Three firms purchased only carcasses and did no slaughtering.

1/ Prepared by Donald B. Agnew, Agricultural Economist, Marketing Economics Division, Economics Research Service.

2/ Pounds cut represent closely the output of the fresh pork department that is marketed as food. This output includes cuts sold fresh or uncured (loins and spare-ribs mostly, and some fresh hams), cuts for curing and smoking (hams, picnics, Boston butts, bacon sides) sold green or transferred within the plant, and trimmings for sausage or other processed products. There are some losses in weight between carcass weight and total pork output for food uses, for example, fat cuts and fat trimmings used for lard and some inedible lean trim, but these are partly offset by noncarcass items sold for food or used in food processing, for example, livers and other edible offal.

3/ "Marketing" expenses include packaging supplies, order filling, shipping room expenses, selling and delivery costs.

Table 11.--Packers' costs of slaughtering, cutting and "marketing" fresh (uncured) pork, 22 packers, September 1959-August 1960

Item	Average cost per 100 pounds of fresh pork						Average volume	
	Slaughtering and cutting			Marketing				
	Materials	Fixed	Labor	Total	1/	Total		
22 firms, including 3 doing no							1,000	
slaughtering	22.72	0.83	1.10	1.93	1.30	25.96	34,400	
19 firms slaughter- ing and dressing								
pork	22.10	.91	1.20	2.11	1.28	25.49	34,460	

1/ Marketing costs include expenses of packaging, order filling, shipping room, selling and delivery.

Table 12.--Variation in costs for slaughtering, cutting and marketing per 100 pounds of fresh (uncured) pork, 22 packers, September 1959-August 1960

Item 1/	Slaughtering and cutting cost						Total cost Volume
	Material cost	Fixed	Labor	Total	Marketing cost	Total cost	
High .....							1,000
	23.91	1.06	1.30	2.47	1.43	26.77	49,000
Average .....	22.72	.83	1.10	1.93	1.30	25.96	34,400
Low .....	21.05	.76	.77	1.59	.84	24.12	11,300

1/ High values are those of firms having the fifth highest cost; the low is for the firms having the fifth lowest. Twelve firms had costs between these two values. Average is for all 22 firms.

Of slaughtering and cutting expenses, labor constituted \$1.10 and fixed costs 83 cents per 100 pounds for all 22 firms. Labor cost was related to both labor efficiency measured by output per man-hour and to average wage rates. Firms showing lower than average labor cost also showed higher than average output per man-hour in both killing and cutting. Higher labor cost per pound was associated with low output per man-hour, even for firms with low average wage rates.

Fixed costs included plant and equipment expenses for the killing room and cutting room and an allocated portion of office and administrative expenses. Individual firms, as expected, showed lower fixed costs per unit during months with larger volume; and fixed costs per unit tended to be somewhat lower for those plants with larger volume, although there were exceptions.

Marketing expenses, \$1.30 per 100 pounds, tended to range higher for firms with larger volume, illustrating the cost of increasing competition for sales with growth in size of firm.

Were returns to packers in their fresh pork operations adequate to cover their costs? For these firms and this marketing year, just barely (table 13). On the average, the entire group of 22 firms showed 34 cents per 100 pounds of fresh pork-cut as a contribution from the hog killing and pork cutting departments to the firms earnings before interest charges and Federal and State taxes (partial net margin). Within this group of firms there seemed to be little consistent relation of volume to a firm's partial net margin, although most of the firms with net losses were among the one-half with larger pork volume (table 14). Of the 15 firms with "plus" partial net margins only 5 exceeded \$1.00 per 100 pounds, or 1 cent per pound; of the 7 with "minus" nets, 5 were 22 cents or more per 100 pounds or 0.2 cent per pound.

The live-wholesale price spread for pork, or the so-called "packer spread", averaged \$5.44 per 100 pounds of live hogs for October 1959-September 1960, using Chicago prices--equivalent to about \$7.66 on a carcass weight basis. The corresponding margin for the hog killing and cutting operation studied here amount-

#### Variation in Costs

How variable were expenses among packers? For the first year studied, some individual cost items varied more among firms than did total cost (table 12.) This suggests that there are instances of high fixed cost combined with low labor cost, for example, or high operating expenses in combination with low material cost. Furthermore, some firms may be able to operate successfully at higher cost levels by furnishing a specialized and higher-priced product line, as a result of extra trim or other service.

For the three firms that bought only carcasses and did no slaughtering, their material cost as expected was higher than average, but their production expenses--fixed cost and labor cost--were below average for firms both slaughtering hogs and dressing carcasses. They avoided the fixed cost and labor cost involved in slaughtering and problems of byproduct processing or disposal--but these costs were being incurred by the firms supplying them with carcasses.

#### Packers' Returns

ed to \$3.57 per 100 pounds cut for all 22 firms (or \$3.82 per 100 pounds for the 19 firms slaughtering and cutting) and thus constituted about half of the live-wholesale margin or packer spread for hogs during the same period.

The packer spread covers the entire range of operations and costs from buying live hogs to selling pork products to retailers--procurement, killing and cutting, smoking and curing, rendering lard, and advertising and selling expenses.

These preliminary findings suggest several areas for more detailed study. Collection of monthly data on meat packers' fresh pork operations is continuing, with additional details on composition of labor costs, direct wages and fringe benefits, labor efficiency, and product yields. Future work will include additional packinghouse operations and a larger group of firms. Also, additional data will show whether the 3-1/2 to 4 cents per pound for September 1959 through August 1960 is a typical spread between material cost and income from sales and intra-firm transfers, and whether it covers packers' production and marketing expenses for fresh pork.

Table 13.--Buying-selling margin and operating results for slaughtering, cutting, and marketing per 100 pounds of fresh (uncured) pork, 22 packers, September 1959-August 1960

Item	Slaughter-:				
	: Value of:	: Margin	: ing, cutting	: Partial	: Average
: Cost of sales and: materials: intrafirm: transfers:	: on materials	: and marketing	: net margin	: volume	
: : : : : : expenses					
:					
:					
22 firms, including 3 doing no slaughtering:	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
22.72	26.28	3.57	3.23	0.34	34,400
:					
19 firms slaughtering and dressing hogs	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
22.10	25.92	3.82	3.39	.43	34,460
:					

Table 14.--Variation in buying-selling margin and operating results for slaughtering, cutting and marketing per 100 pounds of fresh (uncured) pork, 22 packers, September 1959-August 1960

Item 1/	Slaughter-:				
	: Value of:	: Margin	: ing, cutting	: Partial	: Average
: sales and: Cost of materials: transfers:	: on materials	: and marketing	: net margin	: volume	
: : : : : : expenses					
:					
:					
High .....	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
27.91	23.91	4.36	2.47	1.08	49,000
:					
Average .....	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
26.28	22.72	3.57	3.23	.34	34,400
:					
Low .....	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
24.57	21.05	3.12	1.59	-.22	11,300
:					

1/ The high value is that of firms having the fifth highest value of sales, cost of materials, volume, etc.; the low is for the firms having the fifth lowest. Twelve firms had value of sales, costs of materials, etc. between the high and low values. The average is for all 22 firms.

SELECTED NEW PUBLICATIONS

1. "A Bibliography of Apple Marketing Research 1945-1960," by Alfred J. Burns, U. S. Dept. Agr., Econ. Res. Ser., Misc. Pub. 866, June 1961.
2. "A Progress Report--Some Aspects of the Competitive Position of the Northwest Frozen Pea Industry," by H. M. Hutchings and G. B. Davis, U. S. Dept. Agr., Misc. Paper 113, May 1961. (Oregon Agr. Expt. Sta. and AMS cooperating.)
3. "A Survey of Poultry Meat Sales in Georgia Restaurants," by Harold B. Jones and Kenneth N. May, Ga. Agr. Expt. Sta., Mimeo. Series N.S. 112, Mar. 1961. (AMS cooperating.)
4. "Bibliography of Tree Nut Production and Marketing Research 1945-60," by Donn A. Reimund, U. S. Dept. Agr., Econ. Res. Ser., Misc. Pub. 862, June 1961.
5. "Consumption and Demand for Ice Cream in the Urban South," by Dale H. Carley, Ga. Agr. Expt. Sta., Southern Cooperative Series, Bul. 76, Jan. 1961. (Agr. Expt. Stas. of Ala., Ark., Fla., Ga., La., Miss., N. C., P. R., S. C., Tenn., Tex. and USDA cooperating.)
6. "Cost of Alternative Methods of Bagging and Loading Potatoes in the Southeast," by George L. Capel and R. E. L. Greene, U. S. Dept. Agr., Fla. Agr. Expt. Sta., Agr. Econ. Rpt. 61-10, Mar. 1961. (AMS cooperating.)
7. "Costs, Net Margins, and Selling Prices of Beverages Sold in an Employee Food Service," by D. D. MacPherson and Jesús L. Maldonado, U. S. Dept. Agr., Mktg. Res. Rpt. 464, Apr. 1961.
8. "Descriptions and Analysis of the Iowa-Minnesota-Wisconsin Butter Report," by A. G. Mathis, U. S. Dept. Agr., Mktg. Res. Rpt. 468, Apr. 1961.
9. "Disposing of Surplus Fluid Milk in Midwestern Markets," by Sheldon W. Williams and Orval Kerchner, Ill. Agr. Expt. Sta., Bul. 664, Sept. 1960. (Agr. Expt. Stas. Ill., Ind., Iowa, Kans., Ky., Mich., Minn., Mo., Nebr., N. Dak., Ohio, S. Dak., Wis. and USDA cooperating.) No. Central Regional Pub. 113.
10. "Feed Industry Financing and Contract Programs in Iowa and Surrounding States," by Richard Phillips, Iowa Agr. and Home Econ. Expt. Sta. (Report of project conducted under contract with the Mktg. Econ. Res., Econ. Res. Ser.), Spec. Rpt. 28, Apr. 1961.
11. "Grain Marketing in the Soviet Union with Emphasis on Wheat," Report of a Technical Study Group, U. S. Dept. Agr., Econ. Res. Ser., June 1961.
12. "Handling Groceries from Warehouse to Retail Store Shelves," by Paul Shaffer, John C. Bouma, James J. Karitas, and Gordon Flynn, U. S. Dept. Agr., Mktg. Res. Rpt. 473, May 1961.
13. "Impact of Urea on Oilseed Meal Markets," by Richard Hall, U. S. Dept. Agr., Mktg. Res. Rpt. 472, May 1961.
14. "Labor and Capital for Pelleting Formula Feeds," by Carl J. Vosloh, Jr., U. S. Dept. Agr., Mktg. Res. Rpt. 463, Apr. 1961.
15. "Marketing Commercial Eggs in Georgia," by Harold B. Jones, Ga. Agr. Expt. Sta., Bul. N.S. 83, Apr. 1961. (AMS cooperating.)
16. "Measures and Procedures for Analysis of U. S. Food Consumption," by Marguerite C. Burk, U. S. Dept. Agr., Econ. Res. Ser., Agr. Handbook 206, June 1961.
17. "Output Per Man-Hour in Factories Processing Farm Food Products," by William H. Waldorf, U. S. Dept. Agr., Tech. Bul. 1243, May 1961.
18. "Raw Sugar--Weight and Polarization Changes during Bulk Shipment from Puerto Rico," by Robert G. Martin, U. S. Dept. Agr., Econ. Res. Ser., ERS-7, June 1961.
19. "Selected Problems in Butterfat Sampling and Testing," by Anthony G. Mathis, Robert W. Johnson, and Elsie D. Anderson, U. S. Dept. Agr., Econ. Res. Ser., Mktg. Res. Rpt. 482, June 1961.
20. "The Hatchery Industry - Structure--Economic Changes--Problems," by Earl H. Rinear, U. S. Dept. Agr., Mktg. Res. Rpt. 483, June 1961.
21. "Traffic Patterns in Domestic Water Transportation of Farm Products and Supplies," by Joseph G. Nale-Povic, U. S. Dept. Agr., Mktg. Res. Rpt. 465, May 1961.

Publications issued by State Agricultural Experiment Stations may be obtained from the issuing Station.



Table 15.- Farm food products: Retail cost and farm value, April-June 1961, January-March 1961, April-June 1960, and 1947-49 average 1/

Product 2/	Retail unit	Retail cost						Net farm value 3/					
		Apr.-	Jan.-	Apr.-	1947-49:	April-June 1961	Apr.-	June	Jan.-	Apr.-	1947-49:	April-June 1961	
		June	Mar.	June	average:	from -	June	Mar.	June	Mar.	from -	from -	
		4/	5/	1960	average:	Jan.-	1961	4/	1961	4/	1960	Jan.-	Apr.-
				Mar.	June	4/	1961	1960	Mar.	June	1961	1960	1960
				Dollars	Dollars	Dollars	Dollars	Percent	Percent	Dollars	Dollars	Percent	Percent
Market basket 6/		1,064.12	1,068.42	5/1,056.80	940.09	7/	1	398.09	5/418.69	5/409.89	466.02	-5	-3
Meat products		275.85	283.53	5/277.67	256.08	-3	-1	134.45	5/147.75	5/147.45	170.90	-9	-9
Dairy products		200.58	202.85	196.80	169.28	-1	2	87.38	5/ 90.91	5/85.79	91.66	-4	2
Poultry and eggs	quantities purchased	83.02	94.28	87.77	117.01	-12	-5	48.80	58.39	5/54.44	80.69	-16	-10
Bakery and cereal products	per urban	167.71	167.31	163.32	121.96	7/	3	29.48	5/29.81	5/28.73	34.97	-1	3
All ingredients	wage-earner and clerical	---	---	---	---	---	---	21.22	21.79	5/21.70	24.96	-3	-2
All fruits and vegetables	worker	248.26	233.66	247.15	184.68	6	7/	75.69	5/70.45	5/75.15	60.93	7	1
Fresh fruits and vegetables	family in 1952	150.18	136.37	153.85	103.91	10	7/	53.35	5/48.91	5/56.11	42.91	9	-5
Processed fruits and vegetables		71.31	69.88	77.03	53.17	2	-7	22.24	20.45	5/26.21	22.97	9	-15
Fats and oils		98.09	97.29	93.31	—	1	5	22.34	5/21.54	5/19.04	—	4	17
Miscellaneous products		43.74	41.99	40.32	52.21	4	8	15.03	14.15	5/10.99	19.84	6	37
		44.96	44.80	43.78	38.87	7/	3	7.27	5/7.23	5/7.34	7.03	1	-1
		Cents	Cents	Cents	Cents	Percent	Percent	Cents	Cents	Cents	Cents	Percent	Percent
Beef (Choice grade)	Pound	79.4	81.7	5/82.1	68.5	-3	-3	42.4	5/47.9	5/49.2	48.5	-11	-14
Lamb (Choice grade)	Pound	63.9	67.7	71.5	63.9	-6	-11	31.1	32.5	5/39.7	44.2	-4	-22
Pork (retail cuts)	Pound	58.0	59.6	56.2	59.4	-3	3	30.3	31.5	29.7	39.7	-4	2
Butter	Pound	76.2	76.5	74.2	79.4	7/	3	53.3	54.3	5/52.6	59.3	-2	1
Cheese, American process	1/2 pound	36.4	36.8	33.9	29.8	-1	7	15.0	5/15.3	14.1	16.0	-2	6
Ice cream	1/2 gallon	86.8	86.8	86.9	—	0	7/	8/23.0	5/23.3	8/22.3	—	-1	3
Milk, evaporated	1 1/2 ounce can	15.9	15.8	15.7	13.7	1	1	6.6	6.7	6.3	7.1	-1	5
Milk, fluid	Quart	25.1	25.5	24.9	20.1	-2	1	10.5	11.1	10.4	10.6	-5	1
Chickens, frying, ready-to-cook	Pound	39.3	42.2	43.3	—	-7	-9	19.3	23.2	5/24.0	—	-17	-20
Eggs	Dozen	50.3	59.4	51.6	66.7	-15	-3	33.0	39.4	5/34.6	48.0	-16	-5
Bread, white													
All ingredients	Pound	20.9	20.9	20.1	13.5	0	4	2.9	2.9	5/2.9	3.3	0	0
Wheat	Pound	---	---	---	---	---	---	2.3	2.4	5/2.4	2.7	-4	-4
Crackers, soda	Pound	29.1	29.1	28.9	—	0	1	3.6	3.7	3.7	—	-3	-3
Corn flakes	12 ounces	26.1	26.0	25.7	17.1	7/	2	2.5	2.6	2.4	3.2	-4	4
Corn meal	Pound	13.2	13.1	13.0	11.8	1	2	2.6	2.6	2.4	3.6	0	8
Flour, white	5 pounds	56.3	56.2	55.5	48.4	7/	1	18.0	18.5	5/18.4	21.0	-3	-2
Rolled oats	18 ounces	22.4	22.3	22.0	14.5	7/	2	3.7	3.7	4.0	4.9	0	-7
Apples	Pound	19.4	15.8	18.4	11.9	23	5	6.9	5.8	5.6	4.3	19	23
Grapefruit	Each	12.2	12.4	14.0	8.5	-2	-13	1.7	1.9	2.6	1.4	-11	-35
Lemons	Pound	20.0	21.3	18.2	17.7	-6	10	4.9	5.4	4.2	5.7	-9	17
Oranges	Dozen	79.8	72.9	70.1	46.6	9	14	28.5	29.3	25.5	12.6	-3	12
Beans, green	Pound	24.7	28.1	26.1	21.1	-12	-5	10.1	12.3	10.3	9.3	-18	-2
Cabbage	Pound	9.7	9.2	11.0	6.9	5	-12	2.4	1.5	3.1	1.9	60	-23
Carrots	Pound	16.6	15.9	13.2	11.1	4	26	5.2	3.5	3.3	4.0	49	58
Celery	Pound	13.3	13.2	13.4	—	1	-1	3.8	3.3	3.7	—	15	3
Lettuce	Head	15.7	16.3	16.2	14.5	-4	-3	4.6	4.5	5.4	6.3	2	-15
Onions	Pound	10.2	9.4	9.7	8.4	9	5	3.8	2.4	2.8	3.7	58	36
Potatoes	10 pounds	66.4	65.5	81.4	51.9	1	-18	18.5	18.5	5/29.0	25.6	0	-36
Sweetpotatoes	Pound	17.2	15.2	13.6	11.6	13	26	7.4	5.8	5/5.3	4.8	28	40
Tomatoes	Pound	33.4	30.6	37.3	—	9	-10	10.2	9.6	13.3	—	6	-23
Orange juice, canned	46 ounce can	48.6	47.2	42.5	—	3	14	19.2	18.7	13.1	—	3	47
Peaches, canned	No. 2-1/2 can	33.6	33.6	31.5	0	0	0	5.3	5.3	5.5	5.3	0	-4
Beans with pork, canned	16 ounce can	14.9	14.9	—	0	0	0	2.1	2.0	2.0	—	5	5
Corn, canned	No. 303 can	20.6	20.3	19.0	16.7	1	8	2.3	2.3	2.3	2.7	0	0
Peas, canned	No. 303 can	22.0	21.8	20.3	21.4	1	8	3.0	3.0	3.0	3.0	0	0
Tomatoes, canned	No. 303 can	16.1	16.2	16.1	14.2	-1	0	2.4	2.4	2.3	2.6	0	4
Orange juice concentrate, frozen	6 ounce can	25.2	24.8	22.1	—	2	14	11.5	9.7	8.4	—	19	37
Strawberries, frozen	10 ounces	27.0	27.1	26.4	—	7/	2	7.1	7.2	5/6.9	—	-1	3
Beans, green, frozen	9 ounces	23.0	23.1	23.0	—	7/	0	4.5	4.5	4.3	—	0	5
Peas, frozen	10 ounces	21.1	21.0	19.8	—	7/	7	2.9	2.9	3.2	—	0	-9
Dried beans (navy)	Pound	16.8	16.8	16.7	19.9	0	1	6.0	5.6	5.7	9.7	7	5
Dried prunes	Pound	41.5	41.1	39.5	23.1	1	5	18.7	18.7	5/17.4	8.8	0	7
Margarine, colored	Pound	28.7	27.5	26.8	39.7	4	7	10.3	9.4	6.7	12.2	10	54
Peanut butter	Pound	55.9	55.7	55.4	—	7/	1	19.5	18.8	19.6	—	4	-1
Salad dressing	Pint	37.1	36.2	36.0	37.8	2	3	8.1	7.5	6.1	10.0	8	33
Vegetable shortening	3 pounds	91.1	85.8	80.5	105.6	6	13	36.2	32.8	5/23.7	46.2	10	53
Corn sirup	24 ounces	27.0	26.9	26.6	—	7/	2	2.7	2.7	3.0	—	0	-10
Sugar	5 pounds	59.2	59.4	57.3	48.4	7/	3	20.7	5/20.7	5/20.7	19.4	0	-10

1/ The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

2/ Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

3/ Gross farm value adjusted to exclude imputed values of byproducts obtained in processing.

4/ Preliminary estimates.

5/ Most retail cost figures for January-March 1961 have been revised; figures in other columns revised as indicated.

6/ Sum of product groups may differ slightly from market basket total because of rounding of averages.

7/ Less than 0.5 percent.

8/ Farm value of cream and milk only.

Table 16 - Farm food products: Farm-retail spread and farmer's share of the retail cost, April-June 1961, January-March 1961, April-June 1960, and 1947-49 average 1/

Product 2/	Retail unit	Farm-retail spread 3/						Farmer's share									
		Apr.-June 1961		Jan.-Mar. 1961		Apr.-June 1960		1947-49 average		Percentage change April-June 1961 from -		Apr.-June 1961		Jan.-Mar. 1961		Apr.-June 1960	
		4/	5/	4/	5/	4/	5/	Jan.-Mar. 1961	Apr.-June 1960	4/	5/	4/	5/	4/	5/	4/	5/
Market basket 6/ .....	(:)	666.03	649.73	5/646.91	474.07	3	3	37	39	39	50						
Meat products .....	(:)	141.40	135.78	5/130.22	85.18	4	9	49	5/52	5/53	67						
Dairy products .....	(:)	113.20	111.94	5/111.01	77.62	1	2	44	45	44	54						
Poultry and eggs .....	Average quantities purchased (:	34.22	35.89	5/33.33	36.32	-5	3	59	62	62	69						
Bakery and cereal products .....	per urban wage-earner (:	138.23	137.50	5/134.59	86.99	1	3	18	18	5/18	29						
Grain .....	and clerical- (:	---	---	---	—	---	---	13	13	13	20						
All fruits and vegetables ....	worker (:	172.57	163.21	5/172.00	123.75	6	7/	30	30	30	33						
Fresh fruits and vegetables: family (:	96.83	87.46	5/97.74	61.00	11	-1	36	36	36	41							
Fresh vegetables .....	in 1952 (:	49.07	49.43	5/50.82	30.20	-1	-3	31	29	34	43						
Processed fruits and vegetables .....	(:)	75.75	75.75	5/74.27	—	0	2	23	22	20	—						
Fats and oils .....	(:)	28.71	27.84	5/29.33	32.37	3	-2	34	34	27	38						
Miscellaneous products .....	(:)	37.69	37.57	5/36.44	31.84	7/	3	16	16	5/17	18						
		<b>Cents</b>	<b>Cents</b>	<b>Cents</b>	<b>Cents</b>	<b>Percent</b>	<b>Percent</b>	<b>Percent</b>	<b>Percent</b>	<b>Percent</b>	<b>Percent</b>						
Beef (Choice grade) .....	Pound	37.0	33.8	5/32.9	20.0	9	12	53	5/59	5/60	71						
Lamb (Choice grade) .....	Pound	32.8	35.2	5/31.8	19.7	-7	3	49	5/48	56	69						
Pork (retail cuts) .....	Pound	27.7	28.1	26.5	19.7	-1	5	52	53	53	67						
Butter .....	Pound	22.9	22.2	5/21.6	20.1	3	6	70	71	71	75						
Cheese, American process .....	1/2 pound	21.4	21.5	19.8	13.8	7/	8	41	5/42	42	54						
Ice cream .....	1/2 gallon	63.8	63.5	64.6	—	7/	-1	26	27	26	—						
Milk, evaporated .....	1 1/2 ounce can	9.3	9.1	9.4	6.6	2	-1	42	42	40	52						
Milk, fluid .....	Quart	14.6	14.4	14.5	9.5	1	1	42	42	42	53						
Chickens, frying, ready-to-cook: Eggs .....	Pound	20.0	19.0	5/19.3	—	5	4	49	55	5/55	—						
Eggs .....	Dozen	17.3	20.0	5/17.0	18.7	-13	2	66	66	5/67	72						
Bread, white .....																	
All ingredients .....	Pound	18.0	18.0	5/17.2	10.2	0	5	14	14	14	24						
Wheat .....	Pound	---	---	—	—	---	---	11	11	5/12	20						
Crackers, soda .....	Pound	25.5	25.4	25.2	—	7/	1	12	13	13	—						
Corn flakes .....	12 ounces	23.6	23.4	23.3	13.9	1	1	10	10	9	19						
Corn meal .....	Pound	10.6	10.5	10.6	8.2	1	0	20	20	18	31						
Flour, white .....	5 pounds	38.3	37.7	5/37.1	27.4	2	3	32	33	33	43						
Rolled oats .....	18 ounces	18.7	18.6	18.0	9.6	1	4	17	17	18	34						
Apples .....	Pound	12.5	10.0	12.8	7.6	25	-2	36	37	30	36						
Grapefruit .....	Each	10.5	10.5	11.4	7.1	0	-8	14	15	19	16						
Lemons .....	Pound	15.1	15.9	14.0	12.0	-5	8	25	25	23	32						
Oranges .....	Dozen	51.3	43.6	44.6	34.0	18	15	36	40	36	27						
Beans, green .....	Pound	14.6	15.8	15.8	11.8	-8	-8	41	44	39	44						
Cabbage .....	Pound	7.3	7.7	7.9	5.0	-5	-8	25	16	28	28						
Carrots .....	Pound	11.4	12.4	9.9	7.1	-8	15	31	22	25	36						
Celery .....	Pound	9.5	9.9	9.7	—	-4	-2	29	25	28	—						
Lettuce .....	Head	11.1	11.8	10.8	8.2	-6	3	29	28	33	43						
Onions .....	Pound	6.4	7.0	6.9	4.7	-9	-7	37	26	29	44						
Potatoes .....	10 pounds	47.9	47.0	5/52.4	26.3	2	-9	28	28	36	49						
Sweetpotatoes .....	Pound	9.8	9.4	5/8.3	6.8	4	18	43	38	5/39	41						
Tomatoes .....	Pound	23.2	21.0	24.0	—	10	-3	31	31	36	—						
Orange juice, canned .....	46 ounce can	29.4	28.5	29.4	—	3	0	40	40	31	—						
Peaches, canned .....	No. 2-1/2 can	28.3	28.3	28.1	26.2	0	1	16	16	16	17						
Beans with pork, canned .....	16 ounce can	12.8	12.9	12.9	—	-1	-1	14	13	13	16						
Corn, canned .....	No. 303 can	18.3	18.0	16.7	14.0	2	10	11	11	11	16						
Peas, canned .....	No. 303 can	19.0	18.8	17.3	18.4	1	10	14	14	14	14						
Tomatoes, canned .....	No. 303 can	13.7	13.8	13.8	11.6	-1	-1	15	15	15	18						
Orange juice concentrate, frozen: 6 ounce can		13.7	15.1	13.7	—	-9	0	46	39	38	—						
Strawberries, frozen .....	10 ounces	19.9	19.9	5/19.5	—	0	2	26	27	5/26	—						
Beans, green, frozen .....	9 ounces	18.5	18.6	18.7	—	-1	-1	20	19	19	—						
Peas, frozen .....	10 ounces	18.2	18.1	16.6	—	1	10	14	14	14	16						
Dried beans (navy) .....	Pound	10.8	11.2	11.0	10.2	-4	-2	36	33	34	49						
Dried prunes .....	Pound	22.8	22.4	5/22.1	14.3	2	3	45	45	5/44	38						
Margarine, colored .....	Pound	18.4	18.1	20.1	27.5	2	-8	36	34	25	31						
Peanut butter .....	Pound	36.4	36.9	35.8	—	-1	2	35	34	35	35						
Salad dressing .....	Pint	29.0	28.7	29.9	27.8	1	-3	22	21	17	26						
Vegetable shortening .....	3 pounds	54.9	53.0	5/56.8	59.4	4	-3	40	38	5/29	44						
Corn sirup .....	24 ounces	24.3	24.2	23.6	—	7/	3	10	10	11	—						
Sugar .....	5 pounds	38.5	38.7	5/36.6	29.0	-1	5	35	35	36	40						

<sup>1/</sup> The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

2/ Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

3/ The farm-retail spread is the difference between the retail cost and the net farm value, table

#### 4/ Preliminary estimates.

5/ Preliminary estimates.  
5/ Most farm-retail spread figures for January-March 1961 have been revised; figures in other columns revised as indicated.

6/ Sum of product groups may differ slightly from market-basket total because of rounding of averages.

1/ Less than 0.5 percent.

Table 17.- Farm food products: Retail cost, farm value of equivalent quantities sold by producers, byproduct allowance, farm-retail spread, and farmer's share of retail cost, April-June 1961 1/

<sup>1/</sup> The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

<sup>2/</sup> Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

3/ Market basket total may differ from sum of product group totals because of rounding of averages.  
4/ Includes farm value of cream and milk only.

4/ Includes farm value of cream and milk only.  
5/ Net farm value adjusted for Government payment

<sup>5/</sup> Net farm value adjusted for Government payments to producers was 25.1 cents, farm-retail spread adjusted for Government processor tax was 35.8 cents, farmer's share of retail cost based on adjusted farm value was 42 percent.



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